In the United States Court of Federal Claims

No: 02-21L April 11, 2005

JAMES A. HANSEN,

Plaintiff,

v.

THE UNITED STATES OF AMERICA,

Fifth Amendment; Tucker Act; Takings Jurisdiction; Distinction Between Torts and Takings; Standing; Ripeness; Motion to Dismiss; Summary Judgment

Defendant.

Steven C. Beardsley and Ted L. McBride, Beardsley, Jensen & Von Wald, LLC, for the plaintiff.

Barry A. Weiner, Environmental & Natural Resources Division, United States Department of Justice, for the defendant.

OPINION AND ORDER

Block, Judge.

One issue that has over the decades divided this court is the distinction between torts and takings under the Takings Clause of the Fifth Amendment.¹ The distinction is important because this court has jurisdiction over taking claims under the Tucker Act, but not over tort actions.² At times, the court has indicated that the operative facts of a case can never concurrently state a claim

¹ "... nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V.

² "The United States Court of Federal Claims shall have jurisdiction to render judgment upon any claim against the United States founded ... upon the Constitution ... in cases not sounding in tort." 28 U.S.C. § 1491(a) (2001); see also United State v. Testan, 424 U.S. 392, 398 (1976) (ruling that the Tucker Act does not create substantive rights, but confers jurisdiction where such rights already exist).

for both a taking and a tort.³ Other opinions of this court have taken the opposite view, that the facts giving rise to a takings claim are not inconsistent with those of a nuisance or trespass claim in tort.⁴ The tension between these two divergent approaches is particularly relevant in this case because the gist of the government's motion to dismiss is an argument that the instant facts rest solely in the "tort" pew rather than the "takings" pew and that this court, therefore, lacks jurisdiction over the plaintiff's claim. As a result, a significant portion of the opinion that follows examines the distinction between takings and torts, as framed by the evolution of takings jurisprudence in the United States.

If Justice Holmes' oft-quoted aphorism is correct that the "life of the law has not been logic: it has been experience," then resort to the historic development of takings jurisprudence is not only called for, but essential to resolving the conundrum facing the court. In a nutshell, history reveals that takings jurisprudence has its origin in the common law of property and particularly the tort of nuisance. See generally Kris W. Kobach, The Origins of Regulatory Takings: Setting the Record Straight, 1996 UTAH L. REV. 1211, 1234-76 (detailing several early takings cases in which both common law property and nuisance principles were central features). Courts have accordingly applied the tort concept of proximate (or "legal") causation, which involves concepts such as probability, directness, and foreseeability, to construe the Takings Clause. In applying these concepts rooted in tort law to a takings analysis, courts have struggled with the meaning of "foreseeability" and its proper role in takings cases. This struggle is highlighted by courts' use of the concept of foreseeability in two distinct ways. First, some courts employ foreseeability in terms of the intent of the actors, to determine whether they acted with a specific intent to cause the alleged harm. On the other hand, some courts refer to foreseeability in the context of the relationship

³ See United States v. Moden, 60 Fed. Cl. 275, 288 (2004) (stating that the tort-taking distinction test and the line of related cases "militate[] against" concluding that "the same operative facts may give rise to both a taking and a tort"); Berenholz v. United States, 1 Cl.Ct. 620, 626 (1982) ("If defendant's actions sound in tort, then this [takings] suit must be dismissed ...").

⁴ See Clark v. United States, 19 Cl. Ct. 220, 222-23 (1990) (hereinafter Clark III) ("[t]here is no analytical inconsistency between tort and takings theories. Both a tort and a taking can be made out on the same set of operative facts."); see also Beverly v. United States, 24 Cl. Ct. 197, 201 (1991) (relying on Clark III to conclude that even though facts would have given rise to tort and takings claims, party's decision to pursue FTCA claim foreclosed option of pursuing takings claim); Fadem v. United States, 13 Cl. Ct. 328, 333 (1987) (staying takings action pending resolution of administrative FTCA claim, but stating that "[i]f the administrative decision does not concluded the matter, then the plaintiffs retain their right to go forward with their judicial remedies—either in this Court under their taking theory, or in the District Court under a [FTCA] theory").

⁵ Oliver Wendell Holmes, Jr., The Common Law 1 (1881).

⁶ See, e.g., Columbia Basin Orchard v. United States, 132 F. Supp. 707, 710-11 (Ct. Cl. 1955) (stating that "there must have been an intent on the part of the Government to appropriate the property to the use of the public" and concluding that no such intent was present because the government "could not have foreseen" the harm that it apparently caused to the plaintiff's property in that case).

between the government action and the taking itself, *i.e.*, as an element of a causation analysis. ⁷ Oddly enough, there is a proper role for each of these two applications in the takings analysis. *See Ridge Line, Inc. v. United States*, 346 F.3d 1346, 1355-56 (Fed. Cir. 2003) (summarizing the two-part, tort-taking distinction test, which requires proof of substantial harm and either government intent to invade or harm that is the direct, natural, or probable consequence of government action). Nevertheless, because the concept is at best amorphous, courts have understandably at times confused these two uses of foreseeability.⁸

Despite the Serbonian Bog into which the takings jurisprudence of this court has fallen, the historical origin and application of the basic principles of takings jurisprudence reveal that there is no clear cut distinction between torts and takings. The best that can be said is that not all torts are takings, but that all takings by physical invasion have their origin in tort law and are types of governmental nuisances or, at times, trespasses.

In light of this, it is not fatal to a plaintiff's claim or this court's jurisdiction if the government alleges that the facts might give rise to a tort. Instead, so long as there is some material evidence in the record that establishes the predicates for a traditional takings claim, including an unreasonable interference of a property interest by the government that is both substantial and continuous, a showing of legal (or "proximate") causation, and the existence of at least broad authorization for the governmental acts involved, a plaintiff succeeds in demonstrating subject matter jurisdiction in this court based on the Tucker Act and the Taking Clause of the Fifth Amendment. Accordingly, in those circumstances the plaintiff will prevail against a motion to dismiss challenging this court's jurisdiction.

Indeed, for the judiciary to impose an absolute requirement of a showing of specific intent foreseeability would not only contravene the plain meaning of the Takings Clause—which contains no state of mind requirement—but would also permit government to escape its constitutional duty to compensate its citizens for destruction of their property. *See, e.g., Pumpelly v. Green Bay Co.*, 80 U.S. 166, 177-78 (1871) (holding the government constitutionally liable for the inadvertent flooding of private property); *see also Fletcher v. Peck*, 10 U.S. (6 Cranch) 87, 135 (Marshall, C.J.) (opining that nature and society proscribes government from taking "property from an individual, fairly and honestly acquired . . . without compensation"). *See generally* John Adams, "A Defence of the Constitutions of Government of the United States of America," 1787, in WORKS OF JOHN ADAMS 6:8-9 (Charles Francis Adams ed 1851) ("Property is surely a right of mankind as really as liberty."). Some may think it unfair for the government to pay for harm that it could not foresee.

⁷ See, e.g., Portsmouth Harbor Land & Hotel Co. v. United States, 260 U.S. 327 (1922) (holding that plaintiff stated a taking claim by alleging that the cumulative effect of government actions, regardless of government intent, resulted in a taking); Pumpelly v. Green Bay Co., 80 U.S. 166 (1871); Cotton Land Co. v. United States, 75 F. Supp. 232, 233-35 (Ct. Cl. 1948) (using the concept of foreseeability as a relevant—but not exclusively determinative—means of establishing liability; ultimately concluding that the plaintiff was entitled to compensation because its loss "resulted naturally from the government improvement.").

⁸ See Moden, 60 Fed. Cl. 275; Columbia Basin, 132 F. Supp. 707 (Ct. Cl. 1955).

But, it is the United States Constitution that requires the government to bear the risk in such situations where it directly but inadvertently causes the destruction of private property. The safeguard against the arbitrary state is the very definition of a free society.

The present takings claim was brought by the plaintiff, James A. Hansen, who claims that the government took his property by contaminating the property's source of water. Much of the underground water in Nemo, South Dakota is contaminated by ethylene dibromide ("EDB"), a chemical used throughout the 1970's as a pesticide by the United States Department of Agriculture, Forest Service ("Forest Service"). Forest Service employees reportedly buried several cans of EDB in the mid-1970's at the Nemo Work Center ("Work Center"), Forest Service property that is adjacent to plaintiff's property. Despite considerable efforts in recent years, the Forest Service has failed to locate buried cans of EDB—or even EDB-contaminated soil—at the Work Center. However, the Forest Service has provided water to several homes and businesses that rely on wells now contaminated by EDB. Mr. Hansen is not among the property owners in Nemo receiving clean water from the Forest Service.

Mr. Hansen purchased the Nemo Guest Ranch, the property at issue in this case, in 1998. Although EDB had been detected on the ranch before this sale, it seems that neither the seller nor Mr. Hansen was aware of that fact. In 2000, after Mr. Hansen had learned that two of the wells on his property were contaminated, he sold the ranch to Ron Wick. However, Mr. Hansen retained a significant property interest under South Dakota law in the ranch by virtue of the contract for deed through which the sale to Mr. Wick was executed.

Five wells have been drilled on the ranch; two on the south side (the side closest to the Work Center) and three to the north. The two southern wells are contaminated by EDB, while the three on the north are not. Two of the three northern wells are currently in use and provide enough clean water for the ranch to operate at present. There is no evidence before the court that suggests that any portion of the ranch other than the groundwater drawn by the two southern wells—including any soil, buildings, or air—are currently contaminated by EDB. However, relying on expert testimony, Mr. Hansen contends that all of the ranch's wells will eventually become contaminated by EDB. It is also averred in the affidavit of one expert that the ranch itself will become contaminated. Based on these facts, Mr. Hansen seeks just compensation for the taking of the entire ranch.

The government's primary argument is based on the line of cases that require subjective foreseeability of the alleged harm as a necessary element of a takings claim. According to the government, since the Forest Service neither intended nor could have foreseen the groundwater invasion of EDB, plaintiff's claim necessarily sounds in tort rather than takings law and is beyond this court's jurisdiction. Furthermore, the government raises two other arguments challenging jurisdiction, including plaintiff's standing and the ripeness of his claim. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561 (1992). As to standing, the government first contends that Mr. Hansen lacks standing because the claim he pursues accrued *before* he bought the ranch. It is black letter law, according to the government, that takings claims based on eminent domain or inverse condemnation can be asserted only by the owner or possessor property when the alleged taking occurred. *See Palazzolo v. Rhode Island*, 533 U.S. 606, 628 (2001); *Danforth v. United States*, 308 U.S. 271, 284 (1939). The government's second standing argument is based on South Dakota law.

Because Mr. Hansen subsequently sold the ranch to Mr. Wick, the government contends that Mr. Hansen no longer has a property interest in the alleged contaminated property that allows him to assert a takings claim. Finally, the government argues that because Mr. Hansen seeks just compensation for harm that has in part not yet occurred (that is, the alleged contamination has only materially affected part of the water supply or the workings of the ranch), his claim is not yet ripe for adjudication.

In response, Mr. Hansen disagrees with each of the government's factual averments and legal contentions. Mr. Hansen has also filed a cross-motion for partial summary judgment, but on the limited issue that his claim accrued when he first discovered that part of the ranch was contaminated by EDB. For this, plaintiff simply asserts that based on both defendant's responses to its proposed findings of fact and its memorandum regarding its motion, no issues of material fact remain regarding claim accrual.

For the reasons stated more thoroughly below, the court denies that part of the government's motion asserting that Mr. Hansen's claim sounds in tort because there are genuine issues of material fact as far as the tort-taking distinction test is concerned. Not only has Mr. Hansen presented evidence tending to prove that the contamination of the southern wells was the direct, natural, or probable result of Forest Service actions, but he has also presented evidence tending to prove that the contamination of the ranch's groundwater was the foreseeable result of the Forest Service's actions. In short, Mr. Hansen has demonstrated that the partial EDB contamination of the ranch groundwater was caused by Forest Service activity, in any event, enough to defeat summary judgment.

The government's motion challenging Mr. Hansen's standing will also be denied because genuine issues of material fact remain. Mr. Hansen has presented evidence tending to show that the claim he pursues accrued when he was the sole owner of the ranch and not earlier. Furthermore, Mr. Hansen has proffered evidence showing that he has a present property interest under South Dakota law sufficient to confer this type of standing upon him, the subsequent sale to Mr. Wick notwithstanding.

Similarly, the court also denies the government's motion on ripeness because Mr. Hansen has presented sufficient evidence for the court to conclude that genuine issues of material fact remain regarding this issue. Mr. Hansen's experts have indicated that a likelihood exists that the EDB contamination will eventually spread to the remainder of the ranch's groundwater. Ultimately, the issue of whether Mr. Hansen's experts' opinions will carry the day is one of fact.

Finally, because undisputed evidence indicates that events have occurred fixing the government's alleged liability for a taking, the court grants Mr. Hansen's cross-motion for partial summary judgment. Of course, this ruling regarding claim accrual is not the same as a ruling on liability. As discussed, factual issues remain that the parties must address at trial.

I. FACTUAL BACKGROUND⁹

A major character in this case is a dangerous chemical called ethylene dibromide, or EDB. In the 1990's, Forest Service employees reported that years earlier they buried numerous cans of EDB at the Work Center, which is adjacent to Mr. Hansen's ranch. Indeed, subsequent tests conducted in response to these reports detected EDB in the groundwater near the reported dump site. The Forest Service tried diligently to find the source of the EDB contamination, but failed. EDB has contaminated some of the water under Mr. Hansen's property, and Mr. Hansen alleges a Fifth Amendment taking. The parties now dispute whether (or when) a claim arising from this EDB contamination accrued, how far the EDB contamination has already spread across Mr. Hansen's property, and whether (or how far) it will eventually spread across the rest of the property. Similarly, the parties dispute when the Forest Service became aware of EDB's harmful nature, which may be significant in the context of a jurisdictional issue in this case (*i.e.*, whether the facts here give rise to a tort, rather than a taking claim). The following summary of the facts before the court details the story of EDB in the town of Nemo—and particularly on the plaintiff's property.

A. EDB: A Dangerous Contaminant

Background information on EDB provides a helpful starting point in this case. EDB is a "colorless liquid with a mildly sweet chloroform-like odor" that has been used as, among other things, a fuel additive, solvent, and pesticide. Pl.'s App. at 157. The Forest Service used EDB as a pesticide in the 1970's to kill beetles that infested the Black Hills National Forest. *Id.* at 78, 232. Forest Service employees mixed EDB with either water or diesel fuel (depending on the weather) and applied this mixture to trees throughout the forest. *Id.* at 78, 207, 215-16, 232.

The danger to humans posed by EDB is undisputed. According to Environmental Protection Agency ("EPA") National Primary Drinking Water Regulations issued in 1995, EDB's potential effects on humans after short-term exposure above the Maximum Contaminant Level ("MCL")¹⁰

In 1974, Congress passed the Safe Drinking Water Act. This law requires EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals [(MCLG)].

The MCLG for EDB has been set at zero because EPA believes this level of protection would not cause any of the potential health problems described below.

⁹ These facts are derived from the following sources: (1) Appendix to plaintiff's opposition ("Pl. App."); (2) Appendix to defendant's motion for summary judgment ("D. App."); (3) Appendix to plaintiff's Supplemental Memorandum of June 26, 2003 ("Pl. Supp. App."); (4) plaintiff's Response to defendant's Proposed Findings of Uncontroverted Fact ("Pl. Resp. PFUF"); (5) defendant's Response to plaintiff's Proposed Findings of Uncontroverted Fact ("D. Resp. PFUF"); and (6) the parties' pleadings, motions, and supporting memoranda.

¹⁰ The EPA provides the following background regarding the MCL as it relates to EDB:

include: "damage to the liver, stomach, and adrenal glands, along with significant reproductive system toxicity, particularly [affecting] the testes." *Id.* at 157. The EPA also states that long-term EDB exposure above the MCL will potentially cause "damage [to] the respiratory system, nervous system, liver, heart, and kidneys." *Id.* Moreover, according to the EPA, long-term EDB exposure above the MCL "may have the potential to cause cancer." *Id.*

Besides these dangerous health effects caused by EDB, it is a tenacious environmental contaminant. The parties agree that as little as one quart of EDB, or even less, could cause the contamination of groundwater detected in this case. *See* Pl. App. at 11; D. App. at 33.

These EPA statements in its National Primary Drinking Water Regulations are some of the most recent in a string of regulatory actions. In December 1977, EPA issued a Notice of Rebuttable Presumption Against Registration regarding EDB. *See* 42 Fed. Reg. 63,134 (Dec. 14, 1977). In December 1980, EPA issued a Preliminary Notice of Determination, concluding that because the presumptions regarding EDB's harmfulness had not been rebutted, it had reached a preliminary decision "to cancel use of EDB." 45 Fed. Reg. 81,516, 81,516 (Dec. 10, 1980). In October 1983, EPA issued a notice regarding its intent to cancel EDB's registration under the Federal Insecticide, Fungicide, and Rodenticide Act. 48 Fed. Reg. 46,234 (Oct. 11, 1983). In this notice, EPA stated: "[EDB] has long been known to present a risk of serious acute toxicity, including death, at even relatively low levels of exposure." *Id.* at 46,236. Moreover, EPA concluded: "EDB poses: (1) Increased risk of cancer; (2) increased risk of mutations; (3) increased risk of adverse reproductive effects." *Id.* This conclusion was based on the results of several scientific studies, including five dated to 1975 or earlier. *Id.* After reviewing the risks of EDB in concrete terms, the EPA notice stated: "The use of EDB as a pesticide poses significant risks ... to the general public from contamination of food and groundwater used for drinking." *Id.* at 46,239.

Based on the MCLG, EPA has set an enforceable standard called a Maximum Contaminant Level (MCL). MCLs are set as close to the MCGLs as possible, considering the ability of public water systems to detect and remove contaminants using suitable treatment technologies.

The MCL has been set at 0.05 parts per billion (ppb) because EPA believes, given present technology and resources, this is the lowest level to which water systems can reasonably be required to remove this contaminant should it occur in drinking water.

The drinking water standards and the regulations for ensuring these standards are met, are called the National Primary Drinking Water Regulations. All public water supplies must abide by these regulations.

Pl. App. at 159; Office of Water, U.S. Environmental Protection Agency, Pub. No. EPA 811-F-95-003 p-T, National Primary Drinking Water Regulations: Ethylene Dibromide (1995) available at http://www.epa.gov/safewater/dwh/t-soc/edb.html.

Finally, in September 1983, EPA ordered an immediate emergency suspension of EDB as a soil fumigant of agricultural crops. *See* Press Release, Environmental Protection Agency, EPA Acts to Ban EDB Pesticide (Sept. 30, 1983) *available at* http://www.epa.gov/cgi-bin/epaprintoly.cgi. Also, in March 1987, EPA issued a health advisory regarding EDB's carcinogenic and other potential harmful effects. D. Ex. 7; Office of Drinking Water, U.S. Environmental Protection Agency, Health Advisory: Ethylene Dibromide (Mar. 31, 1987).

Furthermore, EPA is not the only federal agency that has opined on the dangers of EDB. One of plaintiff's expert witnesses, Cathleen J. Webb, Ph.D., an Associate Professor of Chemistry at Western Kentucky University, stated in her affidavit that two federal agencies published warnings about the harmful nature of EDB in the mid-1970's. Pl. App. at 402. According to Webb, the National Cancer Institute ("NCI")¹¹ published a warning that EDB caused cancer in animals in 1974, while the National Institute of Occupational Safety and Health ("NIOSH")¹² published a warning (apparently regarding EDB-related occupational risks) in 1976. *See id.* at 402. While the parties have been unable to locate copies of these warnings (*see* D. Resp. to the Court's Feb. 18 and March 15, 2005 Orders), some of the aforementioned EPA regulatory documents discuss the NCI-sponsored study upon which its 1974 warning regarding EDB relied. *See* 48 Fed. Reg. at 46,234; 45 Fed. Reg. at 81,518-19.

B. Contamination in the Town of Nemo

The town of Nemo is located approximately twenty miles northwest of Rapid City, South Dakota in the Black Hills National Forest. D. PFUF at 1. The Forest Service uses the Nemo Work Center, a twenty-acre parcel located in the town, to manage the surrounding national forest. *Id.* at 2. Water tests conducted regularly since October 1996 have detected EDB in several Nemo wells that draw groundwater. Pl.'s App. at 187, 254-55, 319, 346-51. The apparent source of the contamination is EDB that Forest Service employees reportedly buried at the Work Center.

The first tests for EDB contamination in Nemo were conducted in response to voluntary oral statements of Roger Showman, a Forest Service employee since 1975, to Forest Service officials that he had helped bury several cans containing EDB at the Work Center in 1975 and 1976. *Id.* at 79, 186. Mr. Showman first spoke with Al Bradock, a Forest Service employee who was apparently responsible for hazardous materials, after a hazmat session¹³ held some time in the early 1990's, in

¹¹ A federal agency created by the National Cancer Act of 1937, NCI is one of eight agencies in the Public Health Service in the Department of Health and Human Services.

¹² A federal agency created by the Occupational Safety and Health Act of 1970, NIOSH is part of the Centers for Disease Control and Prevention ("CDC") in the Department of Health and Human Services.

¹³ It is unclear from Mr. Showman's memorandum how soon after the hazmat session (was it the same day or days, weeks, or months later?) he told Mr. Bradock about the EDB dumping.

which Mr. Showman first learned of the hazardous nature of EDB.¹⁴ After learning more about the harmful nature of EDB in this hazmat session, Mr. Showman told Mr. Bradock about his recollections of dumping EDB at the Work Center in the 1970's. *Id.* at 7; 186. According to Mr. Showman, the Forest Service did nothing in response to his statement to Mr. Bradock. *Id.* at 186. However, when Mr. Showman raised the issue again, apparently at some point in 1994, the Forest Service began to address the situation. *Id.* at 7, 186.

On October 22, 1996, after the first tests revealed that several Nemo wells were contaminated by EDB, Mr. Showman wrote a short memorandum¹⁵ detailing his recollections of burying cans of EDB at the Work Center. *Id.* at 186. In his memorandum, Mr. Showman stated:

while I was working at Nemo workcenter as a seasonal [employee] in 1975 and 1976 we buried a number of cans of EDB mixed with Diesel fuel. These were in 5 gallon Jerry Cans, many of which were very corroded as the compound is quite corrosive. some were leaking. These cans were to have the tops unscrewed and were dumped in an opened pit above the workcenter.

Id. (punctuation as in original). Later in his memorandum, Mr. Showman described the condition of the cans further: "many of the cans were leaking when they were buried and the lids were unscrewed on a number of the ones before they were buried." *Id.*

The Forest Service enlisted the services of Jim Emery, ¹⁶ a volunteer retiree, to help locate the cans of EDB that Mr. Showman reportedly helped bury by interviewing former Forest Service employees. *Id.* at 40-41. The interview notes before the court are all dated between August and November 1997. *See id.* at Ex. 13-17. The notes from Mr. Emery's interview of Mr. Showman indicate that Showman was "involved with gathering EDB barrels from around the work center and burying them on the hill." *Id.* at 218. Mr. Showman also recalled that 250 five-gallon cans of EDB were buried at the top of the hill on the Work Center property. *Id.* The Showman interview notes state that the cans were buried in a trench "of a depth that only the exhaust pipe [of the bull dozer] was visible," "twice as wide as the dozer," and seventy to eighty feet long. *Id.* Finally, Mr. Showman also recalled that "his leather boots were eaten up in a very short period of time," apparently due to EDB's corrosiveness. *Id.*

¹⁴ The memorandum Mr. Showman wrote on October 22, 1996 is the court's only source for information regarding Mr. Showman's oral statements to the Forest Service regarding his recollections of burying EDB at the Work Center. *Id.* at 186. Mr. Showman's memorandum does not provide precise dates for when he made his oral reports; instead it states that he first raised the issue approximately four years before the date of the memo and then raised it again approximately two and one half years later. *Id.*

¹⁵ Mr. Showman's memorandum is addressed simply "to files." *Id*.

¹⁶ The record reveals very little about Mr. Emery: he interviewed retired Forest Service employees in an effort to locate the source of Nemo's EDB contamination, he was retired (from what is unclear), and the Forest Service did not compensate him, but did reimburse his expenses. *Id.* at 40-41.

The notes from Mr. Emery's interview of Leo Hageman, a retired Forest Service employee, indicate that Hageman remembered cleaning out five-gallon cans and sending them to other Forest Service locations, but not burying them. *Id.* at 206. However, Mr. Hageman also recalled burying (or causing to be buried) several thirty-gallon cans containing fifteen to twenty gallons of EDB¹⁷ on the Work Center property. *Id.* According to the Hageman interview notes, the Forest Service approach at the time was "just get rid of it and no questions will be asked." *Id.* at 207. Furthermore, Mr. Hageman also recalled that mixing of EDB occurred on "the loading dock in front of the storage building"—and implied that this activity killed two large trees, one on each side of the dock. *Id.*

The notes from Mr. Emery's interview of Gary Woodford, a Forest Service employee from 1969-71, indicate that he remembered burying cans full of what he thinks was EDB on the Work Center property. *Id.* at 213.

The notes from Mr. Emery's interview of Guy Virkula, another retired Forest Service employee, contains some ambiguity regarding EDB dumping at the Work Center, recording both that Virkula had "little or no knowledge of the actual disposal of [the] barrels," but that he "was aware of some burial activities on the hill at Nemo & could recall material & equipment on the excavation site." *Id.* at 215-16. Still, according to the interview notes, Mr. Virkula remembered mixing EDB with water or diesel fuel in five gallon "Jerry (gas) cans." *Id.* at 215. Mr. Virkula also recalled that this mixing occurred on "the dock by the warehouse" and that "some spillage probably occurred daily or at least from time to time." *Id.* at 216. Mr. Virkula "thought this area could be contributing to the present EDB problem," according to the interview notes. *Id.*

The notes from Mr. Emery's interview of Paul McInerney indicate that McInerney "claims to have been there when the cans were being buried and saw liquid squirt [forty feet] in the air when they were crushed." *Id.* at 220. Mr. Emery dismissed this recollection by Mr. McInerney (correctly or not) as a "second-hand story." *Id.* According to the interview notes, Mr. McInerney said "the barrels were left at various locations throughout the forest." *Id.* Mr. McInerney also stated that EDB was a "vicious material that would eat your boots off in a month or two." *Id.*

C. The Forest Service Response

In response to Mr. Showman's oral reports of the early 1990's that he had helped bury cans of EDB at the Work Center, the Forest Service issued a preliminary assessment of the Work Center site, as required by the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 18 on December 23, 1994. Pl. App. at 75-81. The Preliminary Assessment described the Work Center and its four back-filled dump sites or pits, stating that "excess [EDB] was reportedly buried in five gallon fuel cans in the pits" and "[o]ther equipment ranging from a work trailer and wall lockers to hand tools and scrap building materials were also disposed of in the pits."

¹⁷ It is unclear from the interview notes whether Mr. Hageman meant fifteen to twenty gallons in each can or fifteen to twenty gallons total.

¹⁸ See id. at 7 (stating that "the [Preliminary Assessment] was conducted in accordance with "Guidelines for Performing Preliminary Assessments Under CERCLA"").

Id. at 78. The Preliminary Assessment stated that "[c]ontamination of groundwater is the most likely mitigation pathway. The buried fuel cans could be leaking or begin leaking in the future. Waste material could then enter the groundwater." Id. at 79. Ultimately, the Preliminary Assessment concluded that lack of specific information prevented a final conclusion regarding groundwater contamination. Id. at 80-81. Thus, it recommended (among other things) that "[w]ater samples should be taken from the surrounding wells and streams and checked for EDBs" and "[m]onitoring wells should be installed near the pits to detect leakage from the fuel cans." Id. at 81.

Unfortunately, the Forest Service did not test the groundwater for EDB in the Nemo area immediately after it issued this report. *Id.* at 12-13; D. App. at 471. Instead, it inexplicably (since the dangerous nature of EDB was unambiguously established at the time) waited two years before conducting its first tests in October 1996. Pl. App. at 187. The results of the first set of tests, received on October 16, 1996, revealed that ten of eighteen Nemo-area wells tested were contaminated with EDB, some at extremely high levels. *Id.*

Upon receiving these results, the Forest Service responded in several ways. On October 17, 1996, the Forest Service issued a press release acknowledging the EDB contamination; news stories in local newspapers were published in the following days. D. App. at 462-67. The Forest Service also published a legal notice in a local newspaper, disclosed information through a recurring newsletter, and held public meetings regarding the EDB contamination. *Id.* at 463, 468-70, 473-74, 483-85, 491-97.

In October 1996, the Forest Service contracted with Envirosearch International ("Envirosearch"), ¹⁹ an environmental consulting firm, to help it address the EDB contamination. *Id.* at 232. The documents before the court reveal that between October 1996 and October 2001, ²⁰ Envirosearch worked with the Forest Service to periodically test existing Nemo-area wells, drill and periodically test approximately twenty additional monitoring wells, attempt to locate the EDB contamination plume, and attempt to locate and clean-up the source of the EDB contamination. *Id.* at Ex. 21-29; D. App at Ex. 3. Envirosearch issued several reports (dating from 1997 to 2001)²¹ that detail the results of several rounds of water tests it conducted—and its attempts to locate both the contamination source and the resulting contamination plume. *Id.* at Ex. 21-29; D. App at Ex. 3.

Envirosearch and the Forest Service first attempted to locate the source of the EDB contamination in October 1996. According to the Envirosearch report of October 4, 1998, Envirosearch engaged in "excavation activities" in October 1996 that uncovered "buried metallic

²⁰ It appears that MSE, Envirosearch's successor may continue to consult the Forest Service on this matter. *Id.* at 336. Nevertheless, although the parties had ample opportunity to update the record, the last report regarding its activities in the record is dated October 2001.

¹⁹ Envirosearch International was acquired by Millennium Science and Engineering, Inc. ("MSE") in February 2000. All references to Envirosearch in this opinion include MSE, if applicable.

²¹ The record before the court contains only excerpts (in some cases only a single map) from reports dated September 3, 1997, July 3, 1998, October 4, 1998, June 30, 1999, October 28, 1999, December 3, 1999, and January 30, 2001.

debris," but no "pesticide containers." Pl. App. at 269. Next, Envirosearch engaged in "exploratory excavation activities" that were likewise unsuccessful. *Id.* at 271. Envirosearch then conducted geophysical surveys and used an "Electromagnetic Systems EM 31 ground conductivity instrument" to attempt to locate the source of the contamination, methods that also failed to locate the EDB source. Id. at 274. The effort to locate the buried cans of EDB also included the aforementioned interviews (conducted between August and November 1997) of Mr. Showman and several other retired Forest Service employees. *Id.* at 25, 36, 41, 58-59, 206-21. At some point prior to the July 3, 1998 report, Envirosearch also collected soil samples and tested an abandoned well on the Work Center property where EDB may have been spilled or dumped. *Id.* at 325-26. However, just like prior unsuccessful efforts, these tests revealed neither a source of EDB contamination nor soil contamination on the Work Center property. *Id.* at 325, 327.

According to Don Murray, the Forest Service "representative on the ground" in Nemo, the Forest Service and Envirosearch ultimately dug some 70 or 80 holes or trenches in their efforts to locate the source of the EDB contamination. *Id.* at 9, 34. However, based on the most recent information before the court, Forest Service and Envirosearch still have yet to find the source of the EDB contamination; they have not located buried cans or even soil contaminated with EDB at the Work Center. *Id.* at 8-10.

Since 2001, Forest Service efforts to locate the source of the EDB contamination have apparently been limited. *Id.* at 8, 42. Even so, Bill Schleining, who served as the Forest Service on-scene coordinator for the Nemo-area EDB contamination between 1996 and 2001, insisted: "I don't think we will ever give up." *Id.* at 34, 35, 42.

Based on the failure to locate the source of the EDB, Forest Service employees have speculated that the Forest Service may not have caused the contamination. According to Mr. Schleining, not only has the Forest Service never admitted that it caused the contamination, but there is also no direct physical evidence (no buried cans of EDB or even contaminated soil at the Work Center) proving that the Forest Service was the cause. *Id.* at 37-39, 43-44. Mr. Schleining draws a distinction between admitting legal responsibility as the cause of contamination and "accepting responsibility as the lead agency" to address a contamination problem. *Id.* at 37. Pointing out that EDB was also used as a fuel additive, both Mr. Murray and Mr. Schleining stated that a gasoline tank on the plaintiff's own ranch, which apparently leaked and had to be removed, might have been the source of Nemo's EDB contamination instead of dumping at the Work Center. *Id.* at 10-11, 37-38. However, there simply is no evidence before the court supporting these bald assertions. Indeed, even given the failure to locate the source of the EDB contamination, Mr. Schleining clearly acknowledged that he has no reason to disbelieve Mr. Showman's statements that he dumped EDB

²² Envirosearch has acknowledged limitations to its search. For example, it noted that possible source areas may not have been investigated due to extensive tree cover. *Id.* at 271, 355. Similarly, Envirosearch seems to imply that the methods it had used (at least prior to October 1998) would not have been appropriate to locate contamination that was the result of dumping pesticide from cans (as Mr. Showman's memo and the notes from some of the interviews with former Forest Service employees indicate may have occurred) as opposed to burying cans together with the pesticide they contained. *Id.* at 271.

at the Work Station. *Id.* at 36. To be sure, Mr. Schleining agreed that, even if not conclusive, *all* of the available evidence points to the Forest Service as the cause of the EDB contamination. *Id.* at 38-39.

While it has not located the source or cleaned up the EDB contamination, the Forest Service has provided water to some Nemo-area residents. It provided bottled water to impacted residents immediately after receiving the test results in October 1996. *Id.* at 268. Soon thereafter, the Forest Service installed a 6,000-gallon water tank at the Work Center to pipe water to some Nemo-area residents. *Id.* at 268-69. It also installed 1,000-gallon water tanks at two private residences. *Id.* Eventually, the Forest Service began piping water to some Nemo residents from a well approximately 1.5 miles outside of Nemo. *Id.* at 18, 241-43, 312-17. The Forest Service has not charged recipients for the water it has provided so far, and it appears that the Forest Service intends to continue supplying water indefinitely. *Id.* at 52. As discussed below, however, the Forest Service has *not* provided water to Mr. Hansen's property.

The appropriate background regarding EDB contamination in Nemo now established, the court turns next to Mr. Hansen's property, itself, which is at the heart of this case.

D. The Nemo Guest Ranch and EDB Contamination

The Nemo Guest Ranch, the subject of Mr. Hansen's takings claim, is situated on 18 acres of land in Nemo. D. PFUF at 1. The ranch abuts the Work Center property, which lies just south of the ranch property line. *Id.* at 1-2. The ranch, which has operated since 1946, consists of real estate and some small rustic buildings, including a store, a bar, and cabins for guests. *Id.* at 1; Compl. at 2. The State of South Dakota has also recognized water rights associated with the ranch: a vested right to 26 gallons per minute with a priority date of January 1, 1946. *See* Pl. Supp. App. at 1-2.

James A. Hansen acquired the ranch on October 29, 1998 from a corporation represented by Dale Deverman. *See* Pl. App. at 363. On February 17, 2000, Mr. Hansen sold the ranch to Ron Wick. *See id.* at 141-56. Mr. Hansen and Mr. Wick executed a contract for deed, under which Hansen holds legal title to the ranch until Wick completes the required payments. *See id.* If Mr. Wick defaults, the contract permits Mr. Hansen to cancel the contract and keep all improvements and payments made by Wick as liquidated damages. *Id.* at 145. Significantly, the contract refers to the contamination discussed above. It provides that "the parties acknowledge the [Forest Service] caused contamination to land in the Nemo area during the 1970's and it is understood that the ground is still contaminated." *Id.* at 142. Moreover, the contract required Mr. Hansen to drill a new well on the ranch, guarantee that the new well remains free from contamination, and (in the case that contamination "becomes a problem to the water system on the property") provide water for operation of the ranch. *Id.* If contamination shuts down the ranch, the contract permits Mr. Wick to withhold payments and requires Mr. Hansen to pay Wick interest on the amounts already paid. *Id.* at 143.

Although it has done so for some residences and properties in Nemo, the Forest Service has refused to supply water to Mr. Hansen. *Id.* at 12-14, 19, 22, 44, 52. Without providing much detail, Forest Service employees have stated a few different reasons for not providing clean water to Mr. Hansen, including: (a) the ranch is not contaminated; (b) the ranch is commercial (as opposed to

residential); and (c) the ranch continues to have a viable source of water. *Id.* at 13, 14, 44, 52, 138-39.

Mr. Hansen contends that these reasons are riddled with problems. Mr. Hansen points out that the ranch is contaminated to a degree—two of the wells on the property are contaminated. *Id.* at 29, 358. Mr. Hansen also claims that the Forest Service has provided water to commercial properties other than the ranch—and even to a private residence not contaminated by EDB. *Id.* at 19, 22, 138-39. In addition, Mr. Wick is concerned about the future viability of the wells currently in use at the ranch. *Id.* at 133-34; *see also id.* at 30. While the parties agree that the source of water supplying the ranch's current wells is neither cost effective nor desirable, they dispute whether or not the two wells currently in use at the ranch will eventually become unusable due to EDB contamination. D. Resp. PFUF at 7, 17; *see also* Pl. App. at 372. Still, based on the most recent information before the court, the wells currently in use on the ranch provide clean water sufficient to sustain the ranch's operations. *Id.* at 133.

1. The Water Wells on the Nemo Ranch

To the court's knowledge, five water wells have been drilled on the ranch property. The "Old 4T Well" (variously referred to as the Old, 4T, 4T Old, or Old 4T well in the parties' filings) is located on a small piece of property on the opposite side of the road that otherwise serves as the southern border of the ranch property. *See id.* at 365. Two wells referred to as the "Deverman" wells ("Deverman Well No. 1" and "Deverman Well No. 2") are located on the northern side of the ranch property. *Id.* at 364. According to Mr. Hansen, Deverman Well No. 2 was not in operation due to biological contamination when he acquired the ranch. *Id.* In June of 1999, Mr. Hansen had a well drilled near the southeast corner of the ranch property, referred to as the "New 4T Well." *Id.* at 364-65. Finally, Mr. Hansen had an additional well, the "Wick Well," drilled pursuant to the contract with Mr. Wick. *Id.* at 365. The Wick Well is apparently located near the Deverman wells on the northern side of the ranch property. *Id.* Boxelder Creek runs through the northern side of the ranch property. *Id.* at 333. Significantly, the Deverman Wells and the Wick Well are shallow wells under the influence of Boxelder Creek. *Id.* at 364, 365, 370, 372.

In March 1997, before Mr. Hansen purchased the ranch, the Old 4T Well tested positive for EDB. *Id.* at 251. Based on the documents before the court, this was the only time the Old 4T Well was tested for EDB.

The time at which Mr. Deverman, his corporation, or Mr. Hansen knew or should have known that the Old 4T Well was contaminated by EDB is important as far as standing is concerned. At the time of the March 1997 test, the Old 4T Well had not been used for several years due to biological contamination. *Id.* at 52, 59, 71-73. Mr. Deverman, who owned the ranch at the time of the March 1997 test, stated that he did not know that the Old 4T Well had been tested, and that he did not know about the results of any such test. *Id.* at 65-66. Moreover, Mr. Deverman stated that EDB contamination was not an issue for the ranch because the Old 4T Well had been abandoned and was isolated from the ranch by the road. *Id.* at 65-67, 70-71. Mr. Deverman's son, who as an

employee of his father (or his father's corporation) attended meetings and received information²³ from the Forest Service regarding the EDB contamination, told Mr. Deverman that the wells in use at the time (the Deverman wells) had been tested and were not contaminated with EDB. *Id.* at 68-70. When he sold the ranch to Mr. Hansen, Mr. Deverman did not disclose to Mr. Hansen that any part of the ranch was contaminated by EDB, even though the Old 4T Well was part of the property sold. *Id.* at 66, 70.

To be sure, Mr. Hansen sued Mr. Deverman in state court for this and other alleged undisclosed deficiencies in the ranch. *Id.* at Ex. 35 & 36. This litigation was terminated with a settlement: Deverman paid \$100,000 in exchange for a release from Hansen. *Id.* at Ex. 36. In this settlement, Mr. Deverman did not state that he knew or should have disclosed that the ranch was contaminated by EDB when he sold it to Mr. Hansen. *Id.* Moreover, Envirosearch maps available at the time that Mr. Hansen purchased the ranch did not depict the Old 4T Well as contaminated. *Id.* at 247, 259, 261, 324; D. Resp. PFUF at 3. Finally, according to Mr. Hansen, he had no knowledge of the Old 4T Well prior to June 1999. Pl. App. at 365.

Significantly, the New 4T Well tested positive for EDB above the MCL, the aforementioned legal limit established by the EPA, in July 1999, October 2000, April 2001, and October 2001. *Id.* at 349.

Deverman Well No. 1 was tested for EDB in October 1996, May 1997, November 1997, April 1998, July 1998, October 1998, April 1999, September 1999, October 2000, April 2001, and October 2001. *Id.* Deverman Well No. 2 was tested for EDB in October 1996, May 2997, April 1998, and July 1998. *Id.* Deverman Well No. 2, which was abandoned due to biological pollution when Mr. Hansen bought the ranch, was not tested again after July 1998. *Id.* at 349, 364. The Wick Well was tested for EDB in October 2000, April 2001, and October 2001. *Id.* at 349. While the tests of these three wells detected low levels of EDB (no more than .02 parts per billion), none of them detected EDB above the MCL (.05 ppb). *Id.* Thus, based on the most recent documents before the court, ²⁴ Deverman Well No. 1 and the Wick Well continue to provide the ranch with water free from

²³ The Forest Service claims that it sent a letter to Nemo residents, including Mr. Deverman, on September 26, 1996, prior to the water tests that first confirmed the EDB contamination of the Nemo-area. D. App. at Ex. 16. This letter informed Nemo residents of the potential contamination of their property. *Id*.

The October 2001 report prepared by MSE, Envirosearch's successor, states that the Forest Service had contracted with MSE "to maintain the current groundwater monitoring program" and that "the next groundwater monitoring event is scheduled to be conducted in April/May 2002." *Id.* at 354. If water tests have been conducted since October 2001, the parties did not give the court the benefit of seeing the results. However, defendant's counsel has recently claimed that the results of monthly testing indicate that the two wells in use at the ranch "remain[] safe and free of contamination." D. Supp. Memo. of November 9, 2004 at 17 n.8. Nevertheless, the court notes that counsel's statements, undoubtedly made in good faith, do not appear to constitute viable evidence for summary judgment purposes. *See* RCFC 56(e) ("Supporting and opposing affidavits shall be made on personal knowledge, shall set forth such facts as would be admissible in evidence, and shall show affirmatively that the affiant is competent to testify to the matters stated therein").

2. The Likelihood That Contamination Will Spread on the Nemo Ranch

The parties dispute the extent to which the ranch is or will be contaminated by EDB. D. Resp. PFUF at 12, 16, 17. Arguing that EDB contamination of the ranch remains limited, the government relies on the fact that, as discussed in the preceding paragraph, the ranch continues to have clean water sufficient to maintain current operations. D. Supp. Memo. of November 9, 2004 at 17.

The government also relies on the reports prepared by Envirosearch. The Envirosearch Report of September 3, 1997 concluded: "Based on the water level and water quality data observed to date, the Deverman wells supplying the Nemo Guest Ranch appears [sic] to be upgradient and hydraulically isolated from the EDB impacted groundwater." Pl. App. at 241. The conclusion sections of the Envirosearch reports of October 4, 1998 and July 3, 1998 repeated these words verbatim. *Id.* at 311, 328. Similarly, the Envirosearch Report of October 2001 concluded: "Based on the water level and water quality data observed to date, the wells [Deverman Well No. 1 and the Wick Well] supplying the Nemo Guest Ranch appear to be upgradient and hydraulically isolated from the EDB impacted groundwater present further south." *Id.* at 352. To the court's knowledge, these statements, qualified by the word "appear" or "appears" are the most emphatic conclusions Envirosearch has reached regarding the EDB contamination of the ranch.

Envirosearch has also posited that a fault running from East to West—roughly along the course of the road at the ranch's southern border—naturally shields the ranch from EDB contamination. *Id.* at 17, 54, 281-82; *see also id.* at 371. Envirosearch has depicted this inferred fault in several maps as a red or orange line on or near the ranch's southern border. *Id.* at 247, 331, 353. This inferred-fault theory appears to be a "best-guess" based on water testing results. It is not depicted with any scientific precision in Envirosearch's maps.

On the other hand, Mr. Hansen argues that the ranch is or will become completely contaminated by EDB, based on the EDB contamination of the New 4T Well, which is located to the north of the inferred fault Envirosearch has projected in its reports (*i.e.*, the contamination is not confined to the land that the alleged fault dictates). Pl. Opp. Memo of January 16, 2003 at 35. The gist of this claim is that EDB contamination in the New 4T Well undermines Envirosearch's inferred-fault theory. *Id.* Mr. Schleining of the Forest Service implied that contamination of the New 4T Well does not necessarily undermine Envirosearch's inferred-fault theory. *See* Pl. App. at 54. Mr. Scleining stated: "the fault line is very small on the map, whereas on the ground, it could be a lot wider than that," implying that the fact the New 4T Well is on the North side of Envirosearch's projected fault may be attributable either to the lack of precision in the depiction of the fault in Envirosearch's maps—or the "best-guess" nature of the inferred-fault theory itself. *Id.* Mr. Schleining acknowledged that no investigation to determine the width of the fault has been conducted. *Id.*

It is interesting to note that Envirosearch's models and maps of the Nemo contamination plume have been altered to incorporate new data. For example, Envirosearch initially posited two smaller contamination plumes but later concluded that there was one larger plume. *Id.* at 247, 331.

Likewise, the Envirosearch maps dated after July 1999 show that the contamination plume has entered Mr. Hansen's property at the point of the New 4T Well. *Id.* at 331, 333, 340. 344. However, the most recent maps inexplicably do not depict the Old 4T Well as contaminated or the contamination plume to include the Old 4T Well.²⁵ *Id.* at 340, 344. In an apparent general summary, the Envirosearch report of October 2001 states:

EDB concentrations within the heart of the contaminant plume ... have increased significantly, while EDB concentrations in monitoring and domestic wells on the periphery of the plume have remained relatively stable since April 2001. The geometry of the contaminant plume over time has been relatively constant, although some expansion and contraction of the EDB groundwater plume has been documented[.]

Id. at 354. Not surprisingly, the parties seize on different parts of this report that tend to support their own position. Defendant emphasizes the reference to the stability of the plume, while Mr. Hansen emphasizes the language acknowledging the expansion of the plume and its state of flux. D. Resp. PFUF at 19.

Mr. Hansen also relies on affidavits from two expert witnesses: Arden D. Davis, Ph.D., a geological engineer and Professor in the Department of Geology and Geological Engineering at the South Dakota School of Mines and Technology, and Cathleen J. Webb, Ph.D., an Associate Professor of Chemistry at Western Kentucky University. Pl. App. at Ex. 32 and 33.

After discussing his education, experience, and the materials he relied on to form his opinion, Dr. Davis set down in detail his opinion that EDB contamination on the ranch will worsen. *Id.* at 367-69. Specifically, Dr. Davis opined that the EDB plume "will continue to migrate onto" and "continue to move down-gradient or across the Nemo Guest Ranch property" from its source to the South. *Id.* at 371-72. Dr. Davis opined that there is a high probability that Deverman Well No. 1 and the Wick Well will become contaminated with both "biological agents from the creek and water under its influence" and "the EDB plume." *Id.* at 372. Dr. Davis also opined that existing EDB in the ranch's groundwater "will continue to be a source of contamination for an indefinite period of time, and at least the next 50 years." *Id.* at 369. Similarly, Dr. Davis opined that the EDB plume that he expects to further migrate onto the ranch will "continue to affect [the ranch] for decades into the future." *Id.* at 371-72. Addressing the conclusions repeated several times in the Envirosearch reports, Dr. Davis specifically disagreed with the opinion that the ranch's groundwater is upgradient and hydraulically isolated from the EDB-contaminated waters to the South. *Id.* at 370-71. Likewise, Dr. Davis also stated: "I see no evidence of a barrier that would protect the ground under [the ranch]." *Id.* at 371.

Addressing whether EDB contamination of the ranch's groundwater would have been foreseeable to the Forest Service, Dr. Davis stated:

²⁵ It is unclear on what basis Envirosearch concluded (or decided to create the impression in its maps) that the Old 4T Well is not contaminated and that the contamination plume does not include the Old 4T Well. The Old 4T Well was tested in March 1997, when EDB above the MCL was detected.

it is my opinion that the EDB contamination under the Nemo Guest Ranch is the natural and probable consequence of the activities of the United States Forest Service. The knowledge of the nature of the geology of the Nemo area prior to 1970 was such that it was foreseeable that EDB storage, use, and disposal at the workstation, which allowed EDB to come in contact with the ground, would result in the contamination of the bedrock aquifer and that the contamination plume would eventually extend under the Nemo Guest Ranch.

Id. at 370. Similarly, Dr. Davis stated: "[t]here was nothing surprising or unusual about the plume having moved down gradient, toward the creek, spreading under the Nemo Guest Ranch." *Id.* at 369. Finally, Dr. Davis also opined that a clean-up of the Nemo EDB contamination plume would cost millions of dollars. *Id.* at 372.

After discussing her education, experience, and the materials she relied on to form her opinion, Dr. Webb stated that she believes that EDB contamination of the ranch would grow worse. *Id.* at 401-02. Specifically, Dr. Webb opined that "the EDB plume will continue to migrate onto the Nemo Guest Ranch property." *Id.* at 403. Dr. Webb also stated that, based on her knowledge of the "effects of human exposure to the poison, EDB" she "would neither purchase nor visit the Nemo Guest Ranch until a thorough cleanup of the poisonous EDB has been accomplished." *Id.* at 404. Finally, Dr. Webb opined that the EDB plume located on the ranch "will not remediate without human intervention for approximately 80 to 100 years" and that to cleanup of the EDB would cost "millions of dollars." *Id.* at 404-05.

It is uncontroverted in the record that while it may not be possible to predict precisely how long EDB will remain in the ranch's underground water, unmitigated EDB contamination in groundwater is clearly a long-term problem. Because it is not subject to volatilization, EDB in underground water persists much longer than it would under other circumstances (*i.e.*, in the atmosphere or in surface water). Pl. App. at 158, 404. As noted above, both Drs. Davis and Webb concluded that EDB contamination on the ranch will last for decades, and maybe even as long as 100 years. *Id.* at 369, 404. It should be noted that the government has not proffered expert evidence to the contrary. The projected half-life of EDB in underground water (which varies depending on several factors, such as temperature) listed by the EPA appears to be consistent with these estimates. *Id.* at 158.

II. PROCEDURAL BACKGROUND

Plaintiff filed this Fifth Amendment takings action, in which he demands just compensation of \$1,100,000, on January 8, 2002. Initially assigned to Chief Judge Damich, this case was reassigned to the present judge on October 16, 2002.

Careful not to forego possible alternative avenues of recovery, the plaintiff has pursued a tort theory elsewhere. On February 5, 2001, plaintiff initiated an administrative claim against the Forest Service under the Federal Tort Claims Act ("FTCA"). See D. App. at Ex. 4; 13. Plaintiff alleged

²⁶ Because the Forest Service is obviously not a court, plaintiff's initiation of this FTCA administrative process does not implicate 28 U.S.C. § 1500 (2000), which provides in relevant part: "The United States Court of Federal Claims shall not have jurisdiction of any claim for or in respect

in his administrative claim that the Forest Service had contaminated the ranch's groundwater—and that this contamination was a continuous trespass and a nuisance. *See id.* at 77-78. Concluding that its review revealed "no negligence or wrongful act on the part of an employee of the [g]overnment," the Forest Service denied plaintiff's administrative claim. *Id.* at Ex. 5. On November 6, 2002, plaintiff filed an FTCA claim in U.S. District Court, District of South Dakota.²⁷ *See id.* at Ex. 14. Plaintiff's district court complaint, which was more tailored to the FTCA, alleged that negligent or wrongful actions of government employees had caused the contamination of the ranch—and that a private person would be liable for such contamination under South Dakota law. *See id.* at 448-52. Plaintiff's tort action in district court has been stayed pending litigation in this court. D. Reply of Feb. 14, 2003 at 1-2.

In response to plaintiff's complaint in this court, defendant filed a motion to dismiss for lack of jurisdiction, or in the alternative for summary judgment, on December 2, 2002. On January 16, 2003, plaintiff filed his opposition to defendant's motion and a cross-motion for partial summary judgment. The court held a hearing regarding these motions on May 27, 2003. In that hearing, the court directed the parties to submit supplemental briefs on: (a) South Dakota law related to the effect of the contract between plaintiff and Mr. Wick on plaintiff's standing; (b) plaintiff's property interest in the ground water beneath the ranch; (c) the takings law regarding stigmatization; and (d) the applicability of *United States v. Dickinson*, 331 U.S. 745 (1947).

On October 9, 2003, the matter was referred to Alternative Dispute Resolution with the parties' approval. After the parties were unable to reach a settlement, the case was transferred back to this court on July 14, 2004.

The court conducted a status conference on September 21, 2004, in which it gave the parties the opportunity to refresh the case law in their previously filed submissions, paying special attention in their supplemental filings to the following issues: (a) the applicability of *Portsmouth Harbor Land & Hotel Co. v. United States*, 260 U.S. 327 (1922), and its recent progeny, as well as *Ridge Line, Inc. v. United States*, 346 F.3d 1346 (Fed. Cir. 2003), and recently decided *Moden v. United States*, 60 Fed. Cl. 275 (2004); (b) whether the court should stay the case pending the appeal of *Moden* before the Federal Circuit; (c) the applicability of *United States v. Dickinson*, 331 U.S. 745 (1947), and the so-called "*Dickinson* stabilization doctrine" to this case; and, finally, (d) the scope of plaintiff's property interest in the groundwater beneath the ranch.

to which the plaintiff or his assignee has pending in any other court any suit or process against the United States."

²⁷ Plaintiff's filing of this FTCA claim in district court does not trigger 28 U.S.C. § 1500 (2000), because it was filed after the claim in this court. Even if plaintiff's takings claim here and tort claim in district court were the same for the purposes of § 1500 (an issue the court need not analyze), the filing of the same claim in another court after jurisdiction is established in the Court of Federal Claims does not deprive this court of jurisdiction. *See Hardwick Bros. Co. v. United States*, 72 F.3d 883, 886 (Fed. Cir. 1995).

III. DISCUSSION

A. Standard of Review

Defendant has filed a motion to dismiss under RCFC 12(b)(1)²⁸ and 12(b)(6), or in the alternative for summary judgment, on several issues. First, defendant contends that plaintiff has stated a tort claim which deprives this court of subject matter jurisdiction. *See* 28 U.S.C. § 1491 (2001) (stating that this court has "jurisdiction to render judgment upon any claim against the United States founded ... upon the Constitution ... in cases not sounding in tort."). Defendant also contends that plaintiff lacks standing and has stated a claim that is not ripe for adjudication—claims that also challenge the court's subject matter jurisdiction.

For his part, plaintiff has filed a cross-motion for partial summary judgment on the issue that his taking claim accrued in June 1999 when he first became aware of EDB contamination on the ranch.

To address a typical motion to dismiss for lack of subject matter jurisdiction, the court considers the allegations in the complaint as true. *Reynolds v. Army and Air Force Exch. Serv.*, 846 F.2d 746, 747 (Fed. Cir. 1988). However, when a motion to dismiss challenges the jurisdictional facts alleged in the complaint, the court may consider relevant evidence beyond the pleadings to determine whether jurisdiction is proper. *Id.* Ultimately, plaintiff must prove by a preponderance of the evidence that the court has subject matter jurisdiction. *Id.* at 748. At this point, however, the court does not decide "whether a plaintiff will ultimately prevail, but whether the claimant is entitled to offer evidence to support the claims." *Scheuer v. Rhodes*, 416 U.S. 232, 236 (1974).

To address a motion to dismiss under rule 12(b)(6), the court "assumes that all well-pled factual allegations are true and resolves all reasonable inferences in favor of the nonmovant." *Brubaker Amusement Co., Inc. v. United States*, 304 F.3d 1349, 1355 (Fed. Cir. 2002). Because the court considers evidence outside of the pleadings, defendant's motion to dismiss under RCFC 12(b)(6) is treated as a motion for summary judgment under RCFC 56. *See id.*; RCFC 12(c).

The court notes that special care is required in addressing summary judgment motions in a takings case context. While courts should avoid "precipitous grants of summary judgment" in takings cases due to their "fact-intensive" nature, *Yuba Goldfields, Inc. v. United States*, 723 F.2d 884, 887 (Fed. Cir. 1993), the fact that this is a takings case "does not affect the availability of summary judgment when appropriate to the circumstances." *Avenal v. United States*, 100 F.3d 933,

²⁸ "When a complaint is filed alleging a Tucker Act claim based on a Constitutional provision, statute, or regulation ... the trial court at the outset shall determine, either in response to a motion by the Government or *sua sponte* (the court is always responsible for its own jurisdiction), whether the Constitutional provision, statute, or regulation is one that is money-mandating." *Fisher v. United States*, --- F.3d ---, 2005 WL 545195, *4 (Fed. Cl. 2005). "If the court's conclusion is that the Constitutional provision, statute, or regulation meets the money-mandating test, the court shall declare that it has jurisdiction over the cause, and shall then proceed with the case in the normal course." *Id.* at *5. It is well established that the Fifth Amendment Takings Clause is a money-mandating provision. *See Armstrong v. United States*, 364 U.S. 40, 49 (1960).

936 (Fed. Cir. 1996). Consequently, the court must carefully scrutinize the proffered facts to determine exactly what is at issue, but this does not mean that all contradictions of fact are fatal. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986). In this inquiry, "factual disputes that are irrelevant or unnecessary will not be counted." *Id.* Summary judgment can still be granted where the disagreement is tangential to the case; that is, not material because it would make no a difference in the result of the case under the governing law. *Id.*

The court, therefore, may grant summary judgment only when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. See RCFC 65(c); Anderson, 477 U.S. at 247 (1986). If there are factual disputes that could make a difference under the governing law, courts must resolve them in favor of the nonmoving party. *Id.* at 249. Thus, the court does not determine the truth of the facts alleged at the summary judgment phase, but instead determines whether a proper jury question has been presented. *Id.*

Concerning the facts in the record that the court must scrutinize, it must be emphasized that the party moving for summary judgment is *not* required to produce evidence showing an absence of genuine material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1985). A moving party need only point to an absence of evidence for a required element of the nonmoving party's case. *Id.* Moving parties may succeed, therefore, whether or not they rely "on the pleadings, depositions, answers to interrogatories and admissions on file." *Id.* at 324. However, when a moving party properly identifies an absence of evidence in the nonmoving party's case, the burden then shifts to the nonmoving party to make a showing sufficient to establish that element. *Id.* at 322. It is critical to note that under these circumstances the nonmoving party may not rely on her pleadings or other mere assertions²⁹ not recognized under RCFC 56(e) as sufficient to "ma[k]e and support" a motion for summary judgment. *Id.* at 324. Once the burden shifts, the nonmoving party must go beyond its own pleadings and identify specific facts in the record that show that there is a genuine issue as to material fact for trial. *Id.* If it does not, summary judgment must be rendered in favor of the moving party. *Id.*

B. Introduction: The Tort-Taking Distinction

The general takings analysis in the Federal Circuit has been organized into a two-part *prima* facie test, requiring a plaintiff to demonstrate (1) a relevant property interest and (2) a government action that has resulted in a taking. See Adams v. United States, 391 F.3d 1212, 1218 (Fed. Cir. 2004). While there are significant issues regarding plaintiff's relevant property interest in this case that will be addressed in turn, the heart of defendant's challenge here is that the government action at issue did not result in a taking, but was instead a tort over which this court lacks jurisdiction. Thus, while the government's challenge is based on one of the substantive issues of the takings analysis (i.e., whether the action resulted in a taking), it is in part here a jurisdictional question that the court must first address. See Lockheed Martin Corp. v. United States, 50 Fed. Cl. 550, 553 (2001), aff'd, 48 Fed. Appx. 752 (Fed. Cir. 2002).

²⁹ This undoubtedly includes unsupported assertions by counsel made in memoranda submitted to the court (*see* footnote 24 above).

The government's argument is in part based on a long-established reading of the Tucker Act that proscribes this court's jurisdiction over claims sounding in tort. The Tucker Act states:

The United States Court of Federal Claims shall have jurisdiction to render judgment upon any claim against the United States founded either upon the Constitution, or any Act of Congress or any regulation of an executive department, or upon any express or implied contract with the United States, or for liquidated or unliquidated damages in cases not sounding in tort.

28 U.S.C. § 1491(a) (2001). Although it is plausible to read the words "in cases not sounding in tort" as qualifying only the last of four categories of cases within the court's jurisdiction,³⁰ these words have been read as a broad exclusion of tort cases from the court's jurisdiction. *See, e.g., Brown v. United States*, 105 F.3d 621, 623 (Fed. Cir. 1997) ("The Court of Federal Claims is a court of limited jurisdiction. It lacks jurisdiction over tort actions against the United States."). In the takings context, this proscription on jurisdiction over torts is at issue because "not every 'invasion' of private property resulting from government activity amounts to an appropriation." *See, e.g., Ridge Line*, 346 F.3d at 1355.

Accordingly, over the course of nearly two centuries of takings jurisprudence, a "line distinguishing potential physical takings from possible torts" has developed. Id. The government predicates its argument that plaintiff's claim here is really a tort on a narrow reading of that test that has evolved in this Circuit to differentiate torts from taking claims. This so-called tort-taking distinction test reflects the close historical relationship between torts and takings. Indeed, the common law of property relied on tort principles, particularly trespass and nuisance, to help define the concept of property itself and the scope of property interests. The development of takings law was, in effect, an extension of the principles of trespass and nuisance to the actions of the government. As courts struggled for a way to limit takings liability, particularly in cases where the harm caused by a government action was not "direct" (i.e., there was no actual invasion of a plaintiff's property, but rather some consequential harm to the plaintiff's property interest), the courts often turned to analytical concepts inherent in tort law such as causation-in-fact and proximate or legal causation to define the outer bounds of those actions and consequences that might result in a taking. Ultimately, courts came to rest upon a distinction between "direct" and consequential harm as the key difference between those cases in which a takings claim would lie. Only where the harm resulted directly from government action could a plaintiff bring a takings claim.

Despite a natural reliance on the objective concepts of causation as the standard takings analytical framework, a jurisdictional quirk caused the takings analysis in this court's predecessor (the Court of Claims) to embrace subjective considerations such as specific intent as a necessary element of a takings claim. This was so even though subjective factors were *not* a factor in the traditional tort-causation analysis. In short, prior to the Tucker Act in 1887 this court did not have specific jurisdiction over takings claims. Since the court did possess proper jurisdiction over contractual undertakings, however, many plaintiffs cast their "takings" claims in the form of an

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³⁰ As shall be seen, this alternative reading of the Tucker Act has received some notable attention before. See the discussion of Justice Brown's concurring opinion in *United States v. Lynah*, 188 U.S. 445 (1903), below.

implied-in-fact contract to bring them within the court's jurisdiction.

Even after the Tucker Act conferred specific subject matter jurisdiction over claims based on the Constitution, and therefore Fifth Amendment Takings Claims, the Court of Claims curiously retained the implied contract analysis of takings and its attendant subjective intent element, as sort of a vestige of its historical precedent. While subsequent decisions of the court and the Supreme Court in the early Twentieth Century clearly indicated that the implied contract analysis was no longer required in a takings analysis, a tension remained in cases that followed. Courts seemed to struggle with the roles of "intent" versus the objective causation analysis in applying the tort-takings distinction test. Traditionally, the tort-causation analysis implicated "intent" only in the context of the government actor's intent to commit the challenged act—a sort of general intent that was not related to the ultimate harm or outcome of the action.

Two distinct approaches to the tort-takings distinction eventually emerged. On one hand, if the plaintiff was able to demonstrate the government's subjective or specific intent to appropriate the owner's property, the courts were content to conclude that a taking could be established, so long as the harm was substantial. This approach is logical.

On the other hand, in those cases where it was clear that the government had in fact caused the plaintiff's harm and that harm was proximately related to the government's actions, the courts relied on the objective causation analysis to determine that a taking had occurred. In this analysis, the need for proof of the government's intent was obviated; indeed, the causation analysis subsumed any showing of subjective intent. In sum, the two different approaches—intent versus causation—emerged as alternative avenues for establishing this court's jurisdiction over a taking. To be sure, imposing an absolute requirement of government intent for takings liability would have contravened the plain meaning of the Takings Clause of the Fifth Amendment, which contains no state of mind requirement. *See Pumpelly*, 80 U.S. at 177-78 (1871) ("Such a construction would pervert the constitutional provision into a restriction upon the rights of the citizen, as those rights stood at the common law, instead of the government, and make it an authority for invasion of private right under the pretext of the public good, which had no warrant in the law or practices of our ancestors.").

The Federal Circuit recently took up the issue in *Ridge Line*, in which the court implicitly resolved any tension between the two approaches by carving out an analytical framework for the tort-taking distinction test that, while not entirely new, incorporated both of the divergent analytical approaches to takings. The Federal Circuit preserved the specific intent approach as one of the prongs of the tort-takings analysis. However, the court recognized that, while sufficient, this outdated approach was not a necessary element of a takings claim. Instead, the *Ridge Line* court adopted the traditional objective tort-causation approach to takings as an alternative means for establishing a takings claim. This causation approach adopted in *Ridge Line* is largely based on causation-in-fact and allows a takings claim to lie so long as the harm is proximately related to the causative action.

In *Ridge Line*, the Federal Circuit neatly summarized the tort-taking distinction test. "First, a property loss compensable as a taking only results when the government intends to invade a protected property interest or the asserted invasion is the 'direct, natural, or probable result of an

authorized activity and not the incidental or consequential injury inflicted by the action." *Ridge Line*, 346 F.3d at 1355. By casting these alternative approaches in the disjunctive, the court explicitly recognized the subjective analysis incumbent in an evaluation of "intent" is separate and distinct from the objective analysis required in the general tort-causation evaluation. "Second, the nature and magnitude of the government action must be considered." *Id.* at 1356. Under this second part of the tort-takings distinction test, "an invasion must appropriate a benefit to the government at the expense of the property owner, or at least preempt the owners [sic] right to enjoy his property for an extended period of time, rather than merely inflict an injury that reduces its value." *Id.*

Despite the seemingly clear approach to the tort-takings distinction espoused in *Ridge Line*, sound application of the concepts of causation and intent that are variously incorporated into the *Ridge Line* test have remained somewhat elusive in application. For example, in a recent decision by this court, the court seemed to misconstrue and overemphasize the role of foreseeability when applying the traditional tort-standard of causation to a takings claim. *See Moden*, 60 Fed. Cl. 275. As a result, the court concluded that no taking could exist because the government had no reasonable cause to anticipate or foresee the particular harm of which the plaintiff complained. This, however, was a departure from the objective standard of causation outlined in the *Ridge Line* test. Instead of focusing on whether the harm could have been foreseen, the *Moden* decision turned on whether it *should* have been foreseen. Since the *Moden* court relied on a causation analysis to determine whether a taking occurred, the court should have limited its inquiry of foreseeability to the issue of whether it was objectively foreseeable that the government's actions could have resulted in the alleged harm. The latter inquiry would be consistent with determining if "the asserted invasion is the direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action." *Ridge Line*, 346 F.3d at 1355 (quotation omitted).

Ultimately, it is this misapplication of the *Ridge Line* test upon which the government relies in this case to avoid takings liability and remove this case from the court's jurisdiction. Generally, the government argues that its agents at the Forest Service did not intend to cause harm to plaintiff's ranch. This is so because the agents never contemplated that burying EDB at the Work Center might cause groundwater contamination that would spread to the local water supply. Moreover, even if it was possible to foresee the likelihood of contamination, the government claims that the Forest Service had no knowledge at the time the EDB was buried that EDB was a dangerous contaminant that, once introduced to the local water supply, would cause the underground water to be unsafe for virtually any ordinary use. The court concludes, however, that this argument rests on an improper interpretation of the law. Since plaintiff has presented facts that if true would satisfy the traditional tort-causation prong of the *Ridge Line* tort-takings distinction test, the role of subjective elements such as the government's intent or whether it actually foresaw the harm are obviated. Accordingly, based on these facts, plaintiff has demonstrated that jurisdiction over his takings claim is proper in this court.

To illustrate these conclusions and this court's analysis of the *Ridge Line* test, a review of the evolution of takings jurisprudence in the Supreme Court and the Federal Circuit (and its predecessors) follows. The goal of the analysis is to flesh out the proper, but independent, roles of causation and intent in the tort-takings analysis and facilitate a proper application of those principles to the facts of this case.

1. Takings Jurisprudence Shares Common Roots with Traditional Tort Concepts

Concepts such as causation-in-fact and proximate causation, which often lie at the heart of takings jurisprudence, are prototypical tort precepts. Although there is a split amongst scholars concerning the original meaning of the Takings Clause,³¹ state courts recognized by the early Nineteenth Century that the jurisprudence of takings and torts such as trespass and nuisance share a common origin: the English common law of property. See generally MORTON J. HOROWITZ, THE Transformation of American Law 1780-1860 74 (1977) ("With almost complete unanimity," American courts before the Civil War echo Blackstone on property); C. G. Tiedemann, A TREATISE On THE LIMITATIONS OF POLICE POWER IN THE UNITED STATES Ch. X (1886) (republished by Da Capo Press 1971) (describing common law nuisance concepts as the origin of the constitutional limitation on police power regulation of property). Blackstone provided this definitive statement regarding property under the common-law: "The third absolute right, inherent in every Englishman, is that of property: which consists in the free use, enjoyment, and disposal of all his acquisitions." 1 WILLIAM BLACKSTONE, COMMENTARIES *138.32 This common law view of property forms the backbone of eminent domain and inverse condemnation law. See United States v. General Motors Corp., 323 U.S. 373, 378 (1945) (calling property "the group of rights inhering in the citizen's relation to the physical thing, as the right to possess, use and dispose of it"); see also Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982) (quoting General Motors) ("Property rights in a physical thing have been described as the rights 'to possess, use, and dispose of it."); Chancellor Manor, Inc. v. United States, 331 F.3d 891, 901 (Fed. Cir. 2003) (quoting General Motors) ("Property within the Fifth Amendment denotes 'the group of rights inhering in the citizen's relation to the physical thing, as the right to possess, use and dispose of it."").

The definition of property as a series of rights, commonly conceptualized as a bundle of sticks, formed the foundation of early takings jurisprudence in the United States. For example, in

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Takings Clause, 94 N.W. U. L. Rev. 1099 (2000); William Michael Treanor, The Original Understanding of the Takings Clause and the Political Process, 95 Colum. L. Rev. 782 (1995), Wm. B. Stoebuck, A General Theory of Eminent Domain, 47 Wash. L. Rev. 553, 601 (1972) (arguing that the Takings Clause should be viewed as only a protection against uncompensated occupied or seizure of land and not against interference with property interests such as the exclusive and quiet use and enjoyment of property) with Eric R. Claeys, Takings and Private Property on the Rehnquist Court, 99 Nw. U. L. Rev. 187 (2004), Douglas W. Kmiec, Inserting the Last Remaining Pieces into the Takings Puzzle, 38 Wm. & Mary L. Rev. 995 (1997); and Douglas W. Kmiec, The Original Understanding of the Taking Clause Is Neither Weak Nor Obtuse, 88 Colum. L. Rev. 1630 (1988) (advocating an "original meaning" approach whereby the Fifth Amendment's protection against uncompensated takings encompasses significant interference with "property" as defined as a "bundle of sticks," a collection of rights and interests, deriving from the English Common law).

³² See also Joseph Story, Commentaries On The Constitution of The United States *xi* and *n*. 12 (*Abridged*) (1833) (reprinted by Carolina Academic Press 1987) (citing A. Sutherland, The Law AT HARVARD: A HISTORY OF IDEAS AND MEN 1817-1967 at 24 (1967)) ("Sir Edmund Burke noted in 1775 that almost as many copies of Blackstone's *Commentaries* were sold in the colonies as were sold in England.").

Gardner v. Newburgh, 2 Johns. Ch. 162 (N.Y. Ch. 1816), Chancellor Kent analyzed the plaintiff's interest in his property as a set of rights, one of which was the right to use water on his property. *Id.* To provide water for a nearby town, the defendant in *Gardner* sought to divert a stream that supplied water to the plaintiff's property. Chancellor Kent concluded that the plaintiff's "right to the use of the water" was "as sacred as a right to the soil over which it flows. It is a part of the freehold, of which no man can be disseised 'but by lawful judgment of his peers, or by due process of law.' This is an ancient and fundamental maxim of common law to be found in Magna Charta." *Id.* Thus, the Chancellor concluded that although government has the power to take property, "a fair compensation, in all cases, [must] be previously made to the individuals affected." *Id.* On this basis, the Chancellor enjoined the diversion of the stream, apparently to permit the defendant to first provide compensation to the plaintiff. *Id.*

The "bundle of sticks" concept of property rights was also advocated in *Woodruff v. Neal*, 28 Conn. 165 (1859), in which a landowner challenged a town by-law that permitted the public to purchase licenses to graze livestock on public highways. *Id.* at 165-66. An easement for a highway across the owner's land had been taken, and members of the public subsequently received licenses from the town to graze their animals upon the highway. Notwithstanding the easement for the public highway, the *Woodruff* court ruled that the private property owner:

retains the fee, and all rights of property in the land not incompatible with the public enjoyment of the right of way ... Subject to this right of the public, he may take trees growing upon the land, occupy mines, sink water courses under it, and generally, has a right to every use and profit which can be derived from it consistent with the easement.

Id. at 167-68. Although the state took some of the landowner's property rights when it obtained the easement for the highway, it did not extinguish the owner's many other property rights inherent to that ownership. Many sticks, such as the right to graze livestock on the land, remained in the plaintiff's bundle of rights and, if taken, entitled the plaintiff to compensation for a taking. Id. ("[W]e are fully satisfied that the granting or authorizing such a license [to graze livestock upon a public highway that runs across another's land], no compensation having been in any manner provided for the owner of the land upon which it is to be exercised, is beyond the constitutional power of the legislature. It constitutes [a] taking").³³

The bundle of sticks approach to property and takings remains prominent to this day in eminent domain and inverse condemnation cases.³⁴ In *Loretto v. Teleprompter Manhattan CATV*

³³ The takings analysis in other seminal early cases applied the bundle of sticks approach. *See, e.g., Transylvania University v. Lexington*, 42 Ky. 25 (1845) (ruling that the right to access, one of many appurtenant rights to property, "partakes in the character of private property, and is therefore protected by the fundamental law"); *Parker v. Boston & Maine R.R.*, 57 Mass. 107, 114-116 (Mass. 1849) (evaluating three discrete property interests, concluding that the taking of each was an independent basis for compensation).

³⁴ However, the Supreme Court has made a distinction in regulatory takings cases where it, in part, has rejected the concept of "conceptual severance," which is equated with the "bundle of sticks" approach. *See Tahoe Sierra Pres. Council v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 322-25

Corp., the Court stated that "the landowner's right to exclude," was "one of the most essential sticks in the bundle of rights that are commonly characterized as property." *Loretto*, 458 U.S. at 433 (quoting *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979)). Requiring the court to consider both "whether the claimant possessed a stick in the bundle of property rights" and "whether the governmental action at issue constituted a taking of that stick," the Federal Circuit's two-step takings inquiry discussed above also has its origins the common-law definition of property. *Adams*, 391 F.3d at 1218.

Courts often turned to tort concepts to define the scope of property rights that comprise the bundle of sticks. In a sense, the law of property and tort are oft intertwined. Courts rely on the tort of trespass to establish one of the "sticks" in an owner's bundle—the right to exclude. *See Loretto*, 458 U.S. at 433. Similarly, the tort of nuisance is used to circumscribe an owner's rights, or establish the bounds of the owner's stick bundle. It is the law of nuisance that is the font of traditional takings jurisprudence.³⁵ Generally speaking, nuisance law limits the owner's use of property to the extent that such enjoyment interferes with others' property rights. The idea underlying nuisance law is captured by the maxim *sic utere tuo ut alienum no laedas*.³⁶ The nuisance principle is part and parcel of the bundle of sticks approach to property because it is nuisance law which defines the scope of a property owner's rights. In other words, there is no stick in the bundle that permits the private property owner to cause a nuisance.

This "nuisance" conception of takings was important in many early takings cases decided in this country. For example, *People v. Platt*, 17 Johns. 195 (N.Y. Sup. Ct. 1819), considered whether a law that required a property owner to destroy or drastically modify his milldam caused a taking for which compensation was required—or whether "the defendant's dam [could] legally be considered and treated as a public nuisance." *Id.* at 209. Other early cases also relied on nuisance principles to define the scope of property owners' bundle of rights. *See, e.g., Commonwealth v. Alger*, 61 Mass. 53, 86 (1851) (ruling that because Alger's wharf was a "noxious" and "injurious" use, "contrary to the maxim *sic utere tuo, ut alienum no laedas*," its removal "was not within the principle of property taken under the right of eminent domain.").

Clearly, nuisance principles continue to define the outer boundaries of takings jurisprudence. This is even true in regulatory takings. The best example is *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992), where the Court observed:

Where the State seeks to sustain a regulation that deprives land of all economically beneficial

(2002).

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³⁵ See discussion of early takings cases below; see also generally Eric R. Claeys, Takings and Private Property on the Rehnquist Court, 99 Nw. U. L. Rev. 187 (2004), Douglas W. Kmiec, Inserting the Last Remaining Pieces into the Takings Puzzle, 38 Wm. & Mary L. Rev. 995 (1997); Douglas W. Kmiec, The Original Understanding of the Taking Clause Is Neither Weak Nor Obtuse, 88 COLUM. L. Rev. 1630 (1988).

³⁶ "So use your own as not to injure another's property." BLACK'S LAW DICTIONARY 1690 (7th ed. 1999).

use, we think it may resist compensation only if the logically antecedent inquiry into the nature of the owner's estate shows that the proscribed use interests were not part of his title to begin with. This accords, we think, with our 'takings' jurisprudence, which has traditionally been guided by understandings of our citizens regarding the content of, and the State's power over, the "bundle of rights" that they acquire when they obtain title to property.

Id. at 1027.³⁷ *Lucas* vividly illustrated the continuing importance of nuisance law in takings jurisprudence, explaining that "the corporate owner of a nuclear generating plant" would not "be entitled to compensation" if the government ordered the removal of the plant because it was constructed "astride an earthquake fault." 505 U.S. at 1029. The point of this hypothetical, of course, is that the power plant owner did not possess a right to cause a nuisance in the first place.

The fact that the law of takings and the law of property torts share common origins renders problematic any argument that tort and takings claims can never arise from the same common facts. Indeed, because tort "pervades the entire law, and is so interlocked at every point with property, contract and other accepted classifications," "the student of law soon discovers [that] the categories are quite arbitrary." W. Page Keeton et al., Prosser and Keeton on Torts 2 (5th Ed. 1984) [hereinafter Prosser and Keeton].

Federal courts have embraced this relationship between tort concepts of property and takings claims. While not all torts are takings, every taking that involves invasion or destruction of property is by definition tortious. In theory, an encroachment on property that constitutes a taking if committed by the government constitutes a tort if committed by a private party. For example, the Supreme Court observed in *Richards v. Washington Terminal Co.*, 233 U.S. 546 (1914), that "it is sufficiently obvious that the acts done by defendant, if done without legislative sanction, would form the subject of an action by plaintiff to recover damages as for a private nuisance." *Id.* at 551; *see also Palm v. United States*, 835 F.Supp 512, 516 (N.D.Cal. 1993) (observing that the "cluster of facts that constitute a claim for an unconstitutional taking and those that indicate the torts of nuisance or trespass are similar in many respects. Both situations involve situations of unlawful entry onto an owner's property or infringement of an owner's right to use and enjoyment of her property.").

The real key to the distinction between mere torts (other than nuisance³⁸) and takings by the government is the substantiality of the harm, not the nature of the actions leading to that harm. In *United States v. Causby*, 328 U.S. 256, 266 (1946), the Supreme Court stated: "it is the character of the invasion, not the amount of damage resulting from it, so long as the damage is substantial, that determines the question whether it is a taking." With this statement in mind, one can imagine a

³⁷ Of course, the reliance on nuisance principles in *Lucas* differs from the above-cited early cases in significant ways. *See* Eric R. Claeys, *Takings and Private Property on the Rehnquist Court*, 99 Nw. U. L. Rev. 187, 208-15 (2004) (analyzing how nuisance principles were applied only in part in *Lucas* due to the Court's efforts to define the line between regulations that do and do not result in regulatory takings).

³⁸ See RESTATEMENT (SECOND) OF TORTS § 826 (1979) (harm must be "serious"); PROSSER AND KEETON at 622-23, 626-29 (an interference with property must be "substantial" to constitute a private nuisance).

theoretical continuum on which torts become takings when a certain threshold of substantial interference with property is reached. In that context, the fact that a tortious interference with property has become sufficiently substantial to constitute a taking does not make that interference any less tortious.

Recent cases support the conclusion that tort and takings claims may arise from the same operative facts, both in practice and in principle. In *Clark v. United States*, 8 Cl.Ct. 649 (1985) (hereinafter *Clark I*), the court addressed the government's contention that the plaintiff had stated a tort claim over which the Claims Court lacked subject matter jurisdiction. Like the present case, *Clark I* dealt with a takings claim based on government contamination of underground water. *Id.* at 650. *Clark I* denied the defendant's jurisdictional challenge, ruling that the plaintiff would have the opportunity to prove at trial whether or not the contamination had either rendered her entire property useless or subjected her property to a servitude. *Id.* at 652. Implicit in this ruling was the conclusion that even though the invasion of the plaintiff's property by the government was tortious in nature, such invasion could also rise to the level of a taking. *See id.* The *Clark I* litigation was later stayed, pending the outcome of plaintiff's litigation in district court under the FTCA. In *Clark v. United States*, 660 F.Supp. 1164 (W.D.Wash. 1987) (*Clark II*), the same plaintiff prevailed on a tort theory based on the same contamination under the FTCA. *See id.* at 1178. Therefore, while the plaintiff subsequently prevailed on a tort theory of liability, the *Clark I* decision would have also allowed the plaintiff to pursue a takings claim based upon the same operative facts.

The right to recover either in tort or for a taking based upon the same operative facts does not, however, address the problem of duplicate recovery. In *Clark v. United States*, 19 Cl. Ct. 220 (1990) (hereinafter *Clark III*), the same plaintiff of *Clark II* attempted to recover under a takings theory for the same harm that had been the basis of her tort claim in *Clark II*. As a theoretical matter, the court in *Clark III* observed that "[t]here is no analytical inconsistency between tort and takings theories. Both a tort and a taking can be made out on the same set of operative facts." *Id.* at 222-23. Still, as a practical matter *Clark III* concluded that "[a] plaintiff alleging both a taking and a tort can recover damages for the loss in value of her property only once." *Id.* at 223.

The conclusion of *Clark II* and *Clark III* that takings and torts are not conceptually distinct is supported by other cases. *See Beverly v. United States*, 24 Cl. Ct. 197, 201 (1991) (relying on *Clark III*); *Fadem v. United States*, 13 Cl. Ct. 328, 333 (1987) (staying takings action pending resolution of administrative FTCA claim, but stating that "[i]f the administrative decision does not concluded the matter, then the plaintiffs retain their right to go forward with their judicial remedies—either in this Court under their taking theory, or in the District Court under a [FTCA] theory"); *Palm*, 835 F.Supp at 516 (concluding that a tort claim over which it had jurisdiction could perhaps still be interpreted as a takings claim, but not exclusively so).

In *El Shifa Pharmaceutical Industries Co. v. United States*, 378 F.3d 1346, 1352-54 (Fed. Cir. 2004), the Federal Circuit concluded that both a taking claim and a claim "that government has taken property in a legally improper manner" can arise from the same operative facts. *Id.* at 1353. *El Shifa* addressed a takings claim based on the destruction of a pharmaceutical plant in Sudan by missiles launched by the United States. *Id.* at 1348-50. *El Shifa* concluded: "[t]hat the complaint suggests the United States may have acted tortiously towards appellants does not remove it from the jurisdiction of the Court of Federal Claims." *Id.* at 1353. It is true that the alleged tort in *El Shifa*

(negligence) is not the same as the tort plaintiff alleges in its FTCA action currently stayed in district court. However, plaintiff's stayed tort claims for trespass or nuisance fit easily within *El Shifa*'s description of a claim that can accompany a takings claim without depriving this court of jurisdiction: a claim "that government has taken property in a legally improper manner." *Id.* at 1353.

2. Traditional Tort Concepts of Causation Applies to Takings Analysis

The significance of the tort origin of takings jurisprudence is not merely of historical interest because takings jurisprudence continues to rely on general tort concepts such as causation to evaluate liability. Generally, tort causation analysis involves two distinct issues: factual and legal causation. Factual causation asks whether a particular harm would have occurred but for a party's actions (or, in the case of more than one potential cause, whether a party's actions were a substantial factor in causing a particular harm). See Prosser and Keeton at 263-68. In contrast, legal causation asks whether a particular harm is too remote from a party's actions—too far down the chain of factual causation—to justify imposing liability. See id. at 272-74. As many courts and commentators have recognized, legal causation is a complex issue that cannot be reduced to a simple universal definition. See id. at 274 ("There is perhaps nothing in the entire field of law which has called forth more disagreement, or upon which the opinions are in such a welter of confusion" as legal causation); see also National By-Products, Inc. v. United States, 405 F.2d 1256, 1273 (Ct. Cl. 1969) (characterizing the remoteness rule as "a somewhat flabby standard which has taken on meaning only through developing case law."); Cotton Land, 75 F.Supp. at 233 (stating that the concept of legal causation was "necessarily vague").

Early takings cases provide examples of how tort causation rules were imported into takings jurisprudence. The earliest cases focused on the distinction between direct and indirect harm caused by the government. While the courts seemed comfortable to place cases in the "takings" pew when the government had effected some real invasion of land or destruction of property, they were less likely to do so when the harm did not involve direct harm. For example, *Lansing v. Smith*, 8 Cow. 146 (N.Y. Sup. Court 1828), held that mere diminished access to private docks that resulted from the construction of a basin in the Hudson River was too "remote and consequential" to rise to the level of causation requisite to prove a an uncompensated taking. Issues of proximate causation were also addressed in *Patterson v. City of Boston*, 37 Mass. 159 (1838), which concluded that a plaintiff was entitled to compensation after the city government deprived him of use rights related to his property for a time when it removed the front of his store to widen a street. *Id.* at 165-66. However, *Patterson* ruled that whether the plaintiff was entitled to damages for "loss of custom" while he was unable to use his property raised the issue of legal causation. *Id.* at 166. *Patterson* deferred to the trial court on this issue, stating that because "cases depend so much upon their own circumstances ... very definite rules *a priori* cannot be expected." *Id.*

Significantly, *Pumpelly v. Green Bay Co.* contains one of the Supreme Court's first important discussions of causation in the takings context.³⁹ In *Pumpelly*, dam construction on the Fox River had caused Lake Winnebago to flood the plaintiff's property, causing "an almost complete

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³⁹ In *Pumpelly*, the Court based its ruling on the takings provision of the Constitution of Wisconsin, which the court concluded was "almost identical" with the Fifth Amendment's takings clause. *Pumpelly*, 80 U.S. at 177.

destruction of the value of the land." *Pumpelly*, 80 U.S. at 167, 177. The harm that plaintiff suffered was collateral to the goal of the government's action, which was to improve navigation, and there was no specific intent to appropriate the plaintiff's property. *Id.* at 167-68. The defendant argued that because the government had invaded or destroyed the plaintiff's property instead of appropriating it, there was no "taking of the land within the meaning of the constitutional provision." *Id.* at 177. Likewise, the defendant argued that the damage to the plaintiff's property was a noncompensable "consequential result" of the exercise of a recognized government power. *Id.*

The premise of the defendant's argument, that the takings provision at issue only protected against the government's intentional appropriation of private property and not its invasion or destruction of that property, was roundly rejected:

It would be a very curious and unsatisfactory result, if in construing a provision of constitutional law, always understood to have been adopted for protection and security to the rights of the individual against the government, and which has received the commendation of jurists, statesmen, and commentators as placing the just principles of the common law on that subject beyond the power of ordinary legislation to change or control them, it shall be held that if the government refrains from the absolute conversion of real property to the uses of the public it can destroy its value entirely, can inflict irreparable and permanent injury to any extent, can in effect subject it to total destruction without making any compensation, because in the narrowest sense of the word, it is not taken for the public use. Such a construction would pervert the constitutional provision into a restriction upon the rights of the citizen, as those rights stood at the common law, instead of the government, and make it an authority for invasion of private right under the pretext of the public good, which had no warrant in the law or practices of our ancestors.

Id. at 177-78. Besides noting the common-law origin of takings doctrine, this language from *Pumpelly* makes it clear that destruction and invasion of private property that is even the collateral result of government action can result in a compensable taking.

Pumpelly also expressly rejected the defendant's narrow legal causation argument. The Court acknowledged the doctrine accepted at the time in many states that "for a consequential injury to the property of the individual arising from the prosecution of improvements of roads, streets, rivers, and other highways, for the public good, there is no redress." Id. at 180-81. The Court did not favor this narrow approach, however. "But we are of the opinion . . . that the [state court] decisions referred to have gone to the uttermost limit of sound judicial construction in favor of this principle, and, in some cases, beyond it." Id. at 181. Notwithstanding the defendant's strict consequential injury defense, the Pumpelly Court adopted a more liberal approach to causation in the takings context, opting instead for an allocation of fault based on a concept resembling causation-in-fact: "where real estate is actually invaded by superinduced additions of water, earth, sand, or other material, or by having any artificial structure placed on it, so as to effectually destroy or impair its usefulness, it is a taking, within the meaning of the Constitution." Id.

In applying causation principles, including the broad causation-in-fact logic employed by the *Pumpelly* Court, subsequent courts struggled with the problem of where to draw the line between government actions that resulted in compensable takings and those that did not. Once again using

tort law as an exemplar, the Supreme Court applied the concept of proximate causation as a means to reign in liability for harm that, while in fact caused by government action, was not proximately related to that action. Specifically, the Court applied the maxim *damnum absque injuria* ("loss or harm for which there is no legal remedy"). BLACK'S LAW DICTIONARY 398 (7th ed. 1999)).⁴⁰

In two cases following the *Pumpelly* decision, the Supreme Court applied the *damnum absque injuria* principle and incorporated the tort concept of consequential harm as a limitation on liability otherwise premised on causation-in-fact. *See Northern Transp. Co. v. Chicago*, 99 U.S. 635 (1878); *Gibson v. United States*, 166 U.S. 269 (1897). In *Northern*, the court concluded that temporary government obstruction of the plaintiff's access to its warehouse caused by a construction project on an adjacent road did not result in a compensable taking. "[A]cts done in the proper exercise of governmental powers, and not directly encroaching upon private property, though their consequences may impair its use, are universally held not to be a taking." *Northern*, 99 U.S. at 642. Thus, focusing on direct versus indirect harm, *Northern* limited the application of *Pumpelly*'s causation-in-fact principles to cases in which there was an actual physical invasion on the claimant's property. *Id.* Since "[n]o entry was made upon the plaintiffs' lot" in *Northern* and "[a]ll that was done was to render for a time its use more inconvenient," the Court denied compensation. *Id.*

Similarly, in *Gibson* the Court concluded that government construction of a dike that rendered the plaintiff's landing on the Ohio River useless at certain times of the year did not result in a compensable taking. Applying the rule of *Northern*, the *Gibson* Court held that "the damage of which [the plaintiff] complained was not the result of the taking of any part of her property, whether upland or submerged, or a direct invasion thereof, but the incidental consequence of the lawful and proper exercise of a governmental power." *Id.* at 275. Thus, *Pumpelly*, as limited by *Northern* and *Gibson*, established that a significant physical invasion of private property constituted a direct (as opposed to consequential) injury that required compensation. Where the invasion was "direct," then the requirement of compensation for a taking was seemingly clear.

United States v. Alexander, 148 U.S. 186 (1893), provides another significant example of the Supreme Court's application of causation principles in the takings context. The plaintiff in Alexander claimed that government installation of a water supply line in the District of Columbia destroyed its "valuable well of water" that was "necessary to supply water for family use and other purposes." Id. at 186-87. The Court acknowledged that the plaintiff's claim could have raised constitutional issues, because "a well of water is property recognized by the law, any injury to which is redressible by law. To pollute or foul the water of a well is an actionable injury." Id. at 191-92.

Regarding causation, the Court observed that "[t]here was no direct evidence as to the effect of the tunnel on the well, but during the process of construction and blasting, about 150 yards from the premises, the well became dry, and it has so remained. It does not appear that there was any

⁴⁰ "[I]n cases of *damnum absque injuria*, an individual owner is left worse off by government action that falls short of a taking." RICHARD A. EPSTEIN, TAKINGS 198 (1985). Professor Epstein provides the following example: "Suppose the government erects a large office building that blocks the view of a lake from a large luxury apartment complex, sharply cutting market rents. … the government is not obligated to compensate, because the owners of the complex would have no claim for damages … against a private neighbor." *Id* .

other cause affecting the well." *Id.* at 187. The Court did not engage in a detailed causation analysis, because it ultimately concluded that the congressional Act calling for the government work provided its own remedy that preempted a takings claim, but it concluded: "[w]e see no reason why we should disregard the finding of the court below, that 'by reason of the construction of said tunnel the said well of water was drained and destroyed," and we regard such a finding as proof that the owners of the property suffered a direct injury." *Id.* at 192. Although the court did not decide the case on the basis of a takings analysis, it is a clear indication that the Court was otherwise willing to embrace a causation analysis to evaluate any takings claim that would have existed absent the special recovery provision in the Act.

In addition to issues of causation, courts also focused on another important concept of what defines a "taking" by addressing the substantiality of the harm. In what would become a staple of takings jurisprudence, courts were concerned with the nature and magnitude of the government action. An important early case that helped established this concept is *United States v. Cress*, 243 U.S. 316 (1917). In Cress, navigational improvements on the Cumberland River caused "frequent overflows" on the plaintiff's land. *Id.* at 318. Because the flooding in *Cress* depreciated the value of the plaintiff's land only by half (as opposed to Lynah's complete and Pumpelly's almost complete destruction), the defendant argued that the plaintiff had only suffered a non-compensable "consequential injury." Id. at 327-28. The Court rejected this argument because "it is the character of the invasion, not the amount of damage resulting from it, so long as the damage is substantial, that determines the question whether it is a taking." Id. at 328. The Court concluded that "[t]here is no difference of kind, but only of degree, between a permanent condition of continual overflow by backwater and a permanent liability to intermittent but inevitably recurring overflows." Id. In such cases, the government takes a flowage easement, which permits it "to overflow" the plaintiff's property as often as necessary to the relevant public purpose. *Id.* at 329. Under this framework, the Court concluded that harm to the plaintiff's property was a "permanent condition" and a "direct invasion amounting to a taking." Id. at 327-28.

These cases and the causation analysis upon which they relied are the backdrop for one of the Supreme Court's seminal takings decisions, *Portsmouth Harbor Land & Hotel Co. v. United States*, 260 U.S. 327 (1922) (Holmes, J.). The plaintiff in *Portsmouth* claimed that government actions had resulted in a taking of its property, a beach resort. *Id.* at 328-329. According to the plaintiff, the government had placed a battery of cannons atop a hill that could only be fired over top of the plaintiff's property. The government fired those guns on several occasions, and also constructed a fire station near plaintiff's property. *Id.* at 329. The plaintiff had filed earlier complaints that were dismissed on the basis that the harm to plaintiff's property did not rise to the level of a taking. *Id.* at 328. In the *Portsmouth* litigation, therefore, the plaintiff alleged that the cumulative effect of the government actions had destroyed the value of its property. *Id.* at 329.

The defendant in *Portsmouth* filed a demurrer, arguing that the plaintiff's claim still did not rise to the level of a taking. *Id.* at 328-29. In its review of one of the earlier cases involving the plaintiff, the Court had concluded:

If the Government had installed its battery ... with the purpose and effect of subordinating the strip of land between the battery and the sea to the right and privilege of the Government to fire projectiles directly across it for the purpose of practice or otherwise, whenever it saw

fit, in time of peace, with the result of depriving the owner of its profitable use, the imposition of such a servitude would constitute an appropriation of property for which compensation should be made.

Id. at 329 (quoting *Peabody v. United States*, 231 U.S. 530, 538 (1913)). Affirming this conclusion of law, the Court considered whether the plaintiff had alleged facts sufficient to survive the demurrer and proceed to trial. *Id.*

The Court opined that if the government "with the admitted intent to fire across the claimants' land at will should fire a single shot or put a fire control upon the land, it well might be that the taking of a right would be complete." *Id.* at 329. Intent, however, was not the determinative factor in the Court's analysis. "[E]ven when the intent thus is not admitted, while a single act may not be enough, a continuance of them in sufficient time may prove it. Every successive trespass adds to the force of the evidence." *Id.* at 329-330. This signal that causation, rather than the actor's intent, was sufficient to prove a taking was consistent with the line of cases preceding *Portsmouth* that had embraced causation.

The Court ultimately concluded that if proved at trial, the plaintiff's allegations "would warrant a finding that a servitude has been imposed." *Id.* at 330. The Court therefore remanded the case for trial, observing that it was for the Court of Claims to determine whether the installation of the battery, occasional firing, and fire station construction constituted a taking or "only occasional torts." *Id.* Apparently advising the trial court on an issue it would encounter—whether or not the government actions were authorized—the Court observed: "[a]s the United States built the fort and put in the guns and the men, there is a little unnatural willingness to find lack of authority to do the acts even if the possible legal consequences were unforeseen." *Id.*

Portsmouth represents the culmination of the law in this area. For a taking to be cognizable, causation—that is a direct, as opposed to an indirect or consequential, appropriation or seizure of property—must be shown. Portsmouth's causation requirement—today often referred to as the "natural, probable consequence test," see Ridge Line, 346 F.3d at 1355, is significant because such a test simply requires proof that the government is the cause-in-fact of the harm for a taking to occur. Causation thus does not require proof that government agents must have specifically intended, and thus could foresee, the specific harm that resulted in the taking. This specific intent requirement, and the foreseeability relating to it, have as their genesis an entirely different specie of law—the Tucker Act and its predecessors.

3. The Role of Specific Intent and Foreseeability in the Court of Claims

In 1887, Congress passed the Tucker Act⁴¹, which extended the subject matter jurisdiction

⁴¹ While the Tucker Act did not create the Court of Claims, it did expand its jurisdiction in a significant way. Congress created the Court of Claims in 1855 to help it address a large backlog of claims against the government. *See* Act of February 24, 1855, ch. 122, 10 Stat. 612 (1855). Upon its creation, the Court of Claims had jurisdiction over "all claims founded upon any law of Congress, or upon any regulation of an executive department, or upon any contract, express or implied, with the government of the United States." *Id.* However, lacking power to enter final judgments, the

of the Court of Claims to include:

All claims founded upon the Constitution of the United States or any law of Congress, except for pensions, or upon any regulation of an Executive Department, or upon any contract, expressed or implied, with the Government of the United States, or for damages, liquidated or unliquidated, in cases not sounding in tort.

Tucker Act, ch. 359, 24 Stat. 505 (1887).⁴² It appears that the extension of jurisdiction to include claims founded upon the Constitution was specifically aimed at formally establishing the Court of Claims' jurisdiction over takings cases. A House Report in the legislative history of the Tucker Act states that "Claims founded upon the Constitution of the United States" would particularly include claims "for just compensation for property taken for public use." H.R. 1077, 49th Cong. (1st Sess. 1886). This jurisdiction has remained much the same to the present.⁴³ *See, e.g.*, Act of March 3, 1911, ch. 231, 36 Stat. 1136; Act of June 25, 1948, ch. 646, 62 Stat. 940; Act of July 28, 1953, ch. 253, 67 Stat. 226 (all codified as amended at 28 U.S.C. § 1441 (2001)).

Court of Claims conducted hearings and issued recommendations to Congress regarding the resolution of claims. *See id.* In 1863, Congress conferred additional power on the Court of Claims by permitting it enter final judgments. *See* Act of March 3, 1863, ch. 92, 12 stat. 765 (1863). Expanding the court's jurisdiction to include government counter-claims and setoffs, this 1863 legislation ensured that the Court of Claims would maintain its core jurisdiction established in 1855.

⁴² Legislative materials indicate that the Tucker Act was intended to further alleviate the burden private petitions imposed on Congress. After detailing the history of Court of Claims, a House Report related to the Tucker Act states:

The history of this legislation and its results have been given to show how much benefit had been done in the satisfactory decision of claims against the Government and in relief of the Congress. But it has long been felt that the benefits could be made much greater by extending the jurisdiction of the court. By confining it to claims under a law of the United States, regulations of departments, and to cases concerning contracts express and implied, there is still a large class of cases in equity, in admiralty, and in tortious acts of the Government through its agents, which are left to Congress, for which a court of justice is better fitted to attain the relief between the litigants.

H.R. 1077, 49th Cong. (1st Sess. 1886). It is arguable that because takings derived from torts—and because takings involving physical invasion or destruction of property have always been a form of tort committed by the government—the reference to tortious acts of government agents included takings.

⁴³ For completeness, the remainder of the history of this court can be stated very briefly: Congress created the U.S. Court of Appeals for the Federal Circuit and the U.S. Claims Court in 1982. *See* Act of April 2, 1982, Pub. L. No. 97-164, 96 Stat. 39. The Federal Circuit considers rulings of the Court of Claims binding precedent. *See South Corp. v. United States*, 690 F.2d 1368 (Fed. Cir. 1982) (en banc). In 1992, the Claims Court became the U.S. Court of Federal Claims. *See* Act of October 29, 1992, Pub. L. 102-572, 106 Stat. 4516.

Nevertheless, even before the Tucker Act explicitly extended the court's jurisdiction to cases arising under the Constitution, the Court of Claims recognized takings claims based on a theory of a breach of an implied contract with the government. *See, e.g., Shreve v. United States*, 1860 WL 4862, 8 U.S. Cong.Rep.C.C. 205 (1860); *Wilkes v. United States*, 1858 WL 4640, 6 U.S.Cong.Rep.C.C. 167 (1858); *Wirt v. United States*, 1858 WL 4644, 6 U.S.Cong.Rep.C.C. 172 (1858). This was an adaptation of the common law principle that plaintiffs could waive the tort that deprived them of property and sue in assumpsit. *See, e.g., Jones v. Hoar*, 22 Mass. 285 (1827). It appears that the Court of Claims first accepted this argument in *Baldwin v. United States*, 1860 WL 4916, 14 U.S.Cong.Rep.C.C. 259 (1860).

In the years that followed, the Court of Claims exercised jurisdiction over several cases based on the theory that implied contracts to compensate owners were created when the government took or destroyed their property. See, e.g., Mason v. United States, 14 Ct. Cl. 59 (1878); Johnson v. United States, 2 Ct. Cl. 391 (1866); Grant v. United States, 1 Ct. Cl. 41 (1863). Several of these cases referred to the Fifth Amendment prohibition on uncompensated takings, but it was clear that an implied contract was the basis for the Court of Claims' jurisdiction and the plaintiffs' recovery. See, e.g., Johnson, 2 Ct. Cl. 391(ruling that the court had no jurisdiction over the plaintiff's claims so far as they sounded in tort, but that under the Fifth Amendment "it has always been held that a party might recover upon the implied contract as though the property had been acquired under an agreement of purchase, leaving the purchase price undetermined."); Grant, 1 Ct. Cl. 41 (holding that the government's destruction of the plaintiff's property "was a taking for public use; and that the government is bound under the Constitution to make just compensation to the owner. The legal duty to make compensation raises an implied promise to do so; and here is found the jurisdiction of this court to entertain this proceeding.").

The Supreme Court sanctioned the Court of Claims' practice of exercising takings jurisdiction based on implied contracts in *United States v. Great Falls Manufacturing Co.*, 112 U.S. 645, 656-57 (1884), although it had implicitly approved (or at least acknowledged without completely disapproving) the practice in earlier opinions. *See Langford v. United States*, 101 U.S. 341, 343-44 (1879); *United States v. Russell*, 80 U.S. 623, 629-32 (1871).

Even though the Tucker Act in 1887 extended the jurisdiction of the Court of Claims to include "claims founded on the Constitution of the United States" (see Tucker Act, ch. 359, 24 Stat. 505 (1887)), the Court of Claims continued to insist after that date that its takings jurisdiction was based on implied contracts. See, e.g., Lanman v. United States, 27 Ct. Cl. 260 (1892); Lyons v. United States, 26 Ct. Cl. 31 (1890). Ruling that "[s]ome element of contractual liability must lie at the foundation of every action" in the Court of Claims, Schillinger v. United States, 155 U.S. 163 (1894), confirmed that the Tucker Act notwithstanding, the Court of Claims' takings jurisdiction continued to be based on implied contracts. Id. at 167, 168, 170-71. Thus, several opinions before the early 1930's denied emphatically that the Court of Claims' takings jurisdiction was based on the Fifth Amendment and the Tucker Act. See, e.g., Klebe v. United States, 263 U.S. 188 (1923); United States v. North American Transportation & Trading Co., 253 U.S. 330 (1920); Tempel v. United States, 248 U.S. 121 (1918); Deutcsh-Austsalische Dampfschiffs Gesellschaft v. United States, 59 Ct. Cl. 450 (1924).

This approach, however, was inconsistent with the view of takings that the Supreme Court had espoused in its line of cases that addressed and established takings based upon concepts of causation, alone, independent of any specific intent the government may or may not have had to inflict harm. The earlier cases that applied tort concepts of causation to takings claims had not been encumbered with discussions of subjective issues like intent, on which the implied contract line of cases so intensely focused. Although the implied contract basis of jurisdiction over takings in the Court of Claims ultimately declined in favor of the express jurisdictional grant in the Tucker Act, the divorce from the analysis inherent in an implied contract type case in favor of the traditional tort notions of causation did not come as suddenly.

In *United States v. Lynah*, 188 U.S. 445 (1903), The Supreme Court invoked the causation principles that had been espoused in *Pumpelly* and its progeny that distinguished cases involving "direct" harm from those in which only "consequential" damages had been incurred. These causation principles, however, were applied in the context of the implied contract analysis. *See id.* at 472. *Lynah* found that navigation improvements, which caused waters from the Savannah River to render the plaintiff's plantation "an irreclaimable bog" by flooding, seepage, and percolation, resulted in a compensable taking. *Id.* at 469. The Court explained:

There have been many cases in which a distinction has been drawn between the taking of property for public uses and a consequential injury to such property, by reason of some public work. In the one class the law implies a contract, a promise to pay for the property taken, which, if the taking was by the general government, will uphold an action in the court of claims; while in the other class there is simply a tortious act doing injury, over which the court of claims has no jurisdiction.

Id. at 472. Citing Pumpelly, Northern, and Gibson (among other cases), Lynah reiterated that physical invasion, itself, was the key factor that distinguished takings from consequential injuries. Id. at 472. Ultimately, Lynah concluded that the government-caused physical invasion by water "wholly and finally destroyed" the value of the plaintiff's property. Id. at 474. Therefore, the Court held: "there has been a taking of the lands for public uses" and "the government is under an implied contract to make just compensation therefor." Id. While the Court focused on an implied contract as the vehicle requiring compensation, there was scant discussion of defendant's intent to violate the plaintiff's property interest. If the Court deemed subjective intent as an important element of plaintiff's recovery, that intent must have been deduced from the defendant's actions.

Justice Brown's concurring opinion in *Lynah* (joined by Justices Shiras and Peckham) disagreed sharply with the Court's use of the implied-contract theory of takings as the basis for recovery. *Id.* at 474-75. Justice Brown argued that jurisdiction was based "irrespective of contract or tort, under that clause of the Tucker [A]ct which vests the [C]ourt of [C]laims with jurisdiction of all claims founded upon the Constitution of the United States." *Id.* at 475 (punctuation omitted).

Justice Brown argued that "claims founded upon the Constitution may be prosecuted in the [C]ourt of [C]laims, whether sounding in contract or in tort." *Id.* This was so, he argued, because the phrase in the Tucker Act limiting jurisdiction to "cases not sounding in tort" related exclusively to the class of cases that the act listed immediately before this phrase: "actions for damages, liquidated or unliquidated." *Id.* Thus, Justice Brown argued that the owner of land taken without

eminent domain proceedings "may seek relief in the [C]ourt of [C]laims ... whether such taking be tortious or by virtue of some contract." *Id.* Justice Brown concluded: "in endeavoring to raise an implied contract to pay for an ordinary trespass to real estate, I think the opinion of the [C]ourt misconceives the true source of our jurisdiction." *Id.* at 479.

The Supreme Court continued to rely on the implied contract approach to takings in *John Horstmann Co. v. United States*, 257 U.S. 138 (1921), but it also followed the approach in *Lynah* of superimposing implied contract concepts on the causation analysis. In *Horstmann*, the government diverted water from one watershed to another, resulting in a general increase in ground water level and a 19-foot increase in two lakes (whose water levels had not fluctuated more than two feet in 29 years). *Id.* at 142-43. The plaintiffs claimed that this flooding and groundwater-level increase destroyed the value of their property. Due to the difficulty in obtaining evidence regarding the movement of underground water, it was not clear that the government's actions had in fact caused the alleged property destruction. *Id.* at 144-45.

As a result of the uncertainty regarding the actual causation of plaintiff's harm, the plaintiffs alleged that the destruction of their property was the result of a combination of natural conditions and government design. *Id.* at 143-44. In a sense, this argument essentially tracked the substantial factor test of causation borrowed from torts, which is applied in tort law to establish causation in cases involving more than one potential cause. The government accordingly argued that the plaintiffs had stated a tort claim over which the Court of Claims lacked jurisdiction. *Id.* at 144.

At trial, the Court of Claims did not conclusively determine whether or not a causal connection between the government's work and the plaintiff's harm existed or not. *See id.* at 144 (noting that the trial court did "not find[] affirmatively that a causal connection did not exist."). The Supreme Court acknowledged this finding but indicated that the record seemed to show that there was such a causal connection. *Id.* at 144-45. Regardless, the Court did not reach a conclusion regarding causation but instead assumed that the government had caused the destruction for the purposes of its analysis. *Id.* at 145. Even assuming a causal relation, the *Horstmann* Court still denied just compensation because it determined that, based on the facts, there was no way that the government could have foreseen the plaintiff's subsequent alleged loss. *Id.* at 146-47. According to the court, this lack of objective foreseeability foreclosed any possibility of the government subjectively "intending" to impliedly contract with plaintiff for a compensable taking. *See id.* at 146.

The *Horstmann* Court acknowledged that when the government substantially destroys the value of private property, "[t]he law will imply a promise to make the required compensation." *Id.* at 145-46. Although causation-in-fact might give rise to some sort of presumption of an implied promise to compensate, "the circumstances may rebut" the implication of such a promise. *Id.* at 146. Based on that approach, the *Horstmann* Court concluded:

We think ... it would border on the extreme to say that the government intended a taking by that which no human knowledge could even predict. Any other conclusion would deter from useful enterprises on account of a dread of incurring unforeseen and immeasurable liability.

⁴⁴ It is notable that this statement acknowledges both the tort origin of takings and the continuing overlap between tort and takings law.

This comment is of especial pertinence that the result of the government's work to the properties of plaintiffs could not have been foreseen or foretold is a necessary deduction from the findings of the Court of Claims. The court found that there is obscurity in the movement of percolating waters, and that there was no evidence to remove it in the present case, and necessarily there could not have been foresight of their destination nor purpose to appropriate the properties.

Id. Accordingly, since the Supreme Court premised the Court of Claims' jurisdiction over the case on an implied promise to pay, the inability to predict or foresee that the government's actions would harm the plaintiffs' property rebutted the existence of that implied promise. *Id.* Even though the Court relied on the government's inability to objectively foresee the potential harm (rather than analyzing whether the government *subjectively* foresaw the harm) to rebut the existence of an implied contract, it is clear that this foreseeability problem was only important to the Court in the sense that it cut off the ability for the government to subjectively intend the harm. *See id.* ("[I]t would border on the extreme to say that the government intended a taking by that which no human knowledge could even predict.").

The *Horstman* decision reveals the continued vitality of the Court of Claims' implied contract analysis of takings. Even though the *Horstman* Court assumed causation and the harm was of the type found to be compensable under the *Pumpelly*, *Northern* and *Gibson* line of cases (which relied solely on causation, rather than implied contract, to determine takings liability), compensation was denied in *Horstmann* because the Court relied on the implied contract analysis and its attendant requirement of subjective, specific intent. The concepts of knowledge, prediction, and foresight are clearly relevant to the court's analysis if "intent" is seen as the equivalent to the "meeting of the minds" element in contracts, an area of the law that revolves around voluntary and deliberate ordering of society through mutually beneficial agreements. *See Gardiner*, *Kamya & Associates v. United States*, 369 F.3d 1318, 1323 (Fed. Cir. 2004) (citing the RESTATEMENT OF CONTRACTS (SECOND) § 17(1) (1981) to define the "meeting of the minds," which provides: "the formation of a contract requires a bargain in which there is a manifestation of mutual assent to the exchange and a consideration.").

4. The Decline of the Implied Contract Takings Analysis

Ultimately, the Supreme Court abandoned the implied contract theory as a basis of the Court of Claims' takings jurisdiction. The decline of that theory was marked by an acknowledgment that the Tucker Act's extension of the Court of Claims' jurisdiction included Fifth Amendment takings claims. Predicating takings jurisdiction on the Fifth Amendment rather than implied contracts is significant because there is no subjective element of a Fifth Amendment claim. Instead, it establishes a right to compensation for property taken by the government for public use, unconditioned by a state-of-mind requirement. In the terms of the causation analysis long applied to takings claims, "foreseeability" implicates only the *objective* predictability of the harm based on a standard of reasonableness—a concept evolved from tort law. It differs starkly from the subjective intent that was long the focus of the Court of Claims and the Supreme Court so long as takings jurisdiction was premised upon implied contract, in which the focus was on the "subjective" foreseeability by government actors of the ultimate harm. While the focus of the implied contract

analysis was on the "intent" of the actors, it seems clear that the courts were willing to infer or deduce intent in those circumstances where the potential harm was foreseeable. *See*, *e.g.*, *Horstmann*, 257 U.S. at 146.

Though decided just one year after *Horstmann*, the *Portsmouth* case (discussed above) marked a retreat from the implied contract theory of takings jurisdiction. *Portsmouth* effectively concluded that the government's "intent" to make use of a plaintiff's property could be proven through a causation analysis, relying on objective standards instead of the government actors' subjective intentions or knowledge. *See Portsmouth*, 260 U.S. at 329-30 ("But even when the intent thus to make use of the claimants' property is not admitted, while a single act may not be enough, a continuance of them in sufficient number and for a sufficient time may prove it. Every successive trespass adds to the force of the evidence [of intent]."). The *Portsmouth* holding explicitly stated that the plaintiff need not prove the government's specific intent to enter into an implied contract, because "[i]f the acts amounted to a taking . . . a contract would be implied whether it was thought of or not." *Id.* at 330. Implicitly, the focus of the *Portsmouth* decision was upon the acts that lead to a taking themselves—an objective standard of causation. The emphasis is almost exclusively on the character of the harm and simple causation; what the government should have foreseen or subjectively intended simply was not determinative in the Court's analysis.

Justice Brandeis's dissent in *Portsmouth* is instructive due to the approach that it criticized the majority for failing to follow. It makes the majority opinion's departure from the implied contract theory of takings all the more clear. To Justice Brandeis, the "mere fact of appropriation" was not sufficient to require compensation under the implied contract theory of takings jurisdiction; instead, the plaintiff was also required to plead and eventually prove that "the government intended to pay" just compensation. *Id.* at 336-37. "Appropriation by the United States of private property for public use . . . does not entitle the owner to sue under the Tucker Act . . . unless the taking was made under such circumstances as to give rise to a contract express or implied in fact to pay compensation." *Id.* at 331. Justice Brandeis argued that the plaintiff had failed to state a takings claim over which the Court of Claims had jurisdiction because it failed to plead facts related to the formation of an implied contract. *Id.* at 331-32. According to the dissent, it was clear "that the officers of the [g]overnment in doing what they did, had no intention of subjecting it to any liability." *Id.* at 332. Therefore, Justice Brandeis implied, the plaintiff had stated at most a tort claim, over which the Court of Claims had no jurisdiction. *Id.* at 339-40.

Clearly, the Brandeis dissent helps give context to the majority opinion in *Portsmouth*. The majority decision helped shift takings jurisprudence under the Tucker Act away from its implied contract roots in the Court of Claims. Furthermore, it implicitly de-emphasized the role of specific government intent in the takings context, in favor of a more objective tort-based causation approach.

The decline of implied contracts in takings jurisprudence would not be so quick, however. While the Supreme Court distinguished eminent domain cases from implied contract takings in *Seaboard Air Line Ry. Co. v. United States*, 261 U.S. 299, 305-06 (1923), implicitly holding that the former were based on the Fifth Amendment, the implied contract analysis was still somewhat intact. The year after *Portsmouth* the Supreme court turned to the issue again in the case of *Sanguinetti v. United States*, 264 U.S. 146 (1924). In *Sanguinetti*, the Court foreshadowed the emerging role of causation and implied contract (*i.e.*, intent) takings analysis by applying both in the same discussion.

The plaintiff's property in *Sanguinetti* was invaded by water after "a flood of unprecedented severity." *Id.* at 147. Prior to this flood, the government had diverted one stream into another, which may have exacerbated the flooding of the plaintiff's property. *Id.*

To these facts, the *Sanguinetti* Court applied the causation test developed in *Pumpelly*, *Lynah*, and *Cress*. The Court summarized the causation and substantiality elements: "in order to create an enforceable liability against the government, it is at least necessary that the overflow be the direct result of the structure, and constitute an actual, permanent invasion of the land, amounting to an appropriation of and not merely an injury to the property." *Id.* at 149. Applying this standard, the Court found no evidence of a permanent invasion, but only a temporary encroachment. *Id.* Moreover, it concluded that because the plaintiff's land had flooded in the past prior to the diversion of the stream, the government did not directly cause the flooding because "it was not shown that the overflow was the direct or necessary result of the structure." *Id.* at 149-50.

Despite reaching a determinative conclusion based on the causation analysis, the *Sanguinetti* Court also stated its conclusion in terms of foreseeability and intent standards earlier associated with implied contracts analysis. The Court noted that the harm plaintiff suffered was not "within the contemplation of or reasonably to be anticipated by the government." *Id.* While the Court did not indicate that the intent discussion was determinative, *Sanguinetti*'s reference to both causation and foreseeability-related concepts may have contributed to the struggle that later courts would have applying the causation and intent analyses.

In *Jacobs v. United States*, 290 U.S. 13 (1933), the Supreme Court finally seemed to move beyond the outdated implied contract analysis. The Court concluded that the plaintiff's Tucker Act takings claim "rested on the Fifth Amendment" and that "[s]tatutory recognition was not necessary. A promise to pay was not necessary. Such a promise was implied because of the duty to pay imposed by the amendment. The suits were thus founded upon the Constitution of the United States." *Id.* at 27. The Court reiterated this conclusion in *United States v. Causby*, 328 U.S. 256, 267 (1946) ("We need not decide whether repeated trespasses might give rise to an implied contract ... If there is a taking, the claim is 'founded upon the Constitution' and is within the jurisdiction of the Court of Claims.") and *Dickinson*, 331 U.S. at 748 (ruling that whether "there was a taking under the Fifth Amendment" or "an implied promise by the Government to pay" was "immaterial").

5. Confusion in the Application of the Doctrines of Intent and Foreseeability in Takings Analysis

Even after the decline of implied contracts as a foundation of this court's takings jurisdiction, courts continued to look for elements of subjective intent or foreseeability in evaluating takings claims. While some courts retained these subjective elements, they did not do so to the exclusion of the causation analysis. Instead, courts commonly concluded that either proof of government intent to invade property or proof that the harm to property was the direct, natural, or probable consequence of government action was sufficient to give rise to a compensable takings claim, so long as the harm was substantial. These issues were addressed to varying degrees in a host of decisions by the Federal

Circuit, the Court of Federal Claims, and their respective predecessors.⁴⁵ While these cases helped flesh out the tort-takings distinction test that would ultimately be clearly and unambiguously stated in *Ridge Line* (discussed in the following section), they also laid the seeds for a degree of confusion because they did not clearly or carefully describe the tort-takings distinction test in its entirety or, on occasion, misapplied relevant concepts such as intent and foreseeability.

a. Intent

The Court of Claims first attempted to reconcile *Lynah*, *Horstmann*, and *Sanguinetti* with the decline of the implied-contract takings in *Columbia Basin Orchard v. United States*, 132 F. Supp. 707 (Ct. Cl. 1955). In *Columbia Basin*, actions by the government (preparations for the construction of Grand Coulee Dam) and unusually heavy rainfall and spring runoff contributed to flooding that harmed the plaintiff's fruit trees. *Id.* at 708-09. The court considered whether the harm was too remote and ultimately denied compensation. *Id.* at 711.

In its statement of the relevant law, *Columbia Basin* simply combined the intent principle of *Lynah*, *Horstmann*, and *Sanguinetti* with the causation principle of *Pumpelly*, *Portsmouth*, and *Causby* to form a simple disjunctive test: "[t]here must have been an intent on the part of the defendant to take plaintiff's property or an intention to do an act the natural and probable consequence of which was to take its property." 132 F. Supp. at 709. This turn is noteworthy: given the decline of implied contract takings, *Columbia Basin* could have simply ruled that intent to invade was no longer relevant. Instead, even though it acknowledged the end of implied contract takings, *Columbia Basin* preserved intent as a basis for takings analysis and quoted extensively from *Horstmann* and *Sanguinetti*. *Id.* at 709-10.

The opinions of the Court of Federal Claims in this area include: *Drury v. United States*, 52 Fed. Cl. 402 (2002); *Teegarden v. United States*, 42 Fed. Cl. 252 (1998); *Boling v. United States*, 41 Fed. Cl. 674 (1998), *rev'd on other grounds*; *BMR Gold Corp. v. United States*, 41 Fed. Cl. 277 (1998); *Thune v. United States*, 41 Fed. Cl. 49 (1998); *B.W. Parkway v. United States*, 29 Fed. Cl. 669 (1993); *Poorbaugh v. United States*, 27 Fed. Cl. 628 (1993). The Claims Court's opinions in this area include: *Bagwell v. United States*, 21 Cl. Ct. 722 (1990); *Clark v. United States*, 8 Cl. Ct. 649 (1985); *Bettini v. United States*, 4 Cl. Ct. 755 (1984); *Baird v. United States*, 5 Cl. Ct. 324 (1984); *Berenholz v. United States*, 1 Cl.Ct. 620 (1982).

⁴⁵ The Federal Circuit's opinions in this area include: *Vaizburd v. United States*, 384 F.3d 1278 (Fed. Cir. 2004); *Ridge Line, Inc. v. United States*, 436 F.3d 1346 (Fed. Cir. 2003); *Owen v. United States*, 851 F.3d 1404 (Fed. Cir. 1988). The opinions of the Court of Claims in this area include: *Foster v. United States*, 607 F.2d 943 (Ct. Cl. 1979); *Sun Oil Co. v. United States*, 572 F.2d 786 (Ct. Cl. 1978); *Barnes v. United States*, 538 F.2d 865 (Ct. Cl. 1976); *Wilfong v. United States*, 480 F.2d 1326 (Ct. Cl. 1973); *King v. United States*, 427 F.2d 767 (Ct. Cl. 1970); *National By-Products, Inc. v. United States*, 405 F.2d 1256 (Ct. Cl. 1969); *R.J. Widen Co. v. United States*, 357 F.2d 988 (Ct. Cl. 1966); *Eyherabide v. United States*, 345 F.2d 565 (Ct. Cl. 1965); *Richard v. United States*, 282 F.2d 901 (Ct. Cl. 1960); *Pashley v. United States*, 156 F.Supp. 737 (Ct. Cl. 1957); *Columbia Basin Orchard v. United States*, 132 F.Supp. 707 (Ct. Cl. 1955); *Fonalledas v. United States*, 107 F.Supp. 1019 (Ct. Cl. 1952); *Cotton Land Co. v. United States*, 75 F.Supp. 232 (Ct. Cl. 1948).

Strangely, despite the emphasis on causation analysis in *Portsmouth*, the court in *Columbia Basin* insisted that the Supreme Court had not rejected a requirement that "there must have been an intent on the part of the Government to appropriate the property." *Id.* at 710. However, *Columbia Basin* acknowledged that "an intent to take" could be implied from the facts of a case, presumably through a causation analysis. *Id.* at 711. Later courts specifically equated this so-called "implied intent" with proof that harm to property was the direct, natural, or probable result of government actions. *See, e.g., Berenholz v. United States*, 1 Cl.Ct. 620, 627 (1982) ("The key element which distinguishes a taking from an incidental injury is the presence on the part of the Government of an intent to appropriate. An intent to appropriate may be implied from the facts of the case. The facts need only demonstrate that the invasion of property rights was the result of acts the natural and probable consequences of which were to effect such an enduring invasion.").

Generally speaking, some cases following *Columbia Basin* clearly summarized all three elements (causation, intent, and substantiality of the harm) of the tort-taking distinction standard that would grow to become the standard in this circuit. *See, e.g.*, *Clark*, 8 Cl. Ct. at 651; *Baird*, 5 Cl. Ct. at 328-29; *Berenholz*, 1 Cl. Ct. at 626-27. However, several cases did not.

Some later cases stated in express terms that proof of intent to invade was not essential to establish a compensable takings claim. *See, e.g., Barnes v. United States*, 538 F.2d 865, 871 (Ct. Cl. 1976) ("Plaintiff need not allege or prove that defendant specifically intended to take property. There need be only a governmental act, the natural and probable consequence of which effect such an enduring invasion of plaintiffs' property as to satisfy all other elements of a compensable taking."); *Richard v. United States*, 282 F.2d 901, 904 (Ct. Cl. 1960) ("It is not necessary to show that the defendant intended to take plaintiff's land; all that plaintiff need show is that the taking of its land was the natural and probable consequence of the acts of the defendant. It is not even necessary for plaintiff to show that defendant was aware of the taking of an interest in its property would naturally result from its acts. It is only necessary to show that this was in fact the natural and probable consequence of them."); *Baird v. United States*, 5 Cl. Ct. 324, 328 (1984) ("Although the plaintiffs need not prove that the government intended to take their property, the flooding must be the natural and probable consequence of the government's action.").

These cases are consistent with *Columbia Basin*'s statement that *either* proof of causation *or* proof of government intent to invade is sufficient to establish a taking. *See Columbia Basin*, 132 F. Supp. at 709. Proof of government intent to invade property is not essential to establish a compensable takings claim, provided causation is demonstrated. However, these cases did not state the test clearly. Some deny that proof of government intent to invade is essential, without expressly acknowledging that proof of such intent would still satisfy the test. *See, e.g., Barnes*, 538 F.2d at 871; *Richard*, 282 F.2d at 904. Others do not mention proof of government intent to invade at all. *See, e.g., King*, 427 F.2d at 769; *Pashley*, 156 F.Supp. at 738. A few cases simply confuse the test. *See, e.g., Teegarden*, 42 Fed. Cl. at 256 (stating that the plaintiff had to prove both government intent to invade *and* that the harm was the direct, natural, or probable consequence of government actions). Other cases only discussed substantiality of the harm, because that element alone was outcome determinative. *See, e.g., Wilfong*, 480 F.2d 1328-30; *Drury*, 52 Fed. Cl. at 403-04; *BMR Gold Corp.*, 41 Fed. Cl. at 282. The incomplete (or incorrect) summation of the appropriate tort-takings distinction standards in these cases provides fertile ground for tension or ambiguity as to the relevant role of subjective intent in the takings analysis.

b. Foreseeability

Several cases in this area decided by the Federal Circuit, this court, and the predecessors of both between the late 1940's and the present applied the causation element of the tort-taking distinction test. In doing so, some referred to foreseeability or some related concept. See, e.g., Barnes, 538 F.2d at 872-73 (the government "actually foresaw" and "anticipated" that a particular factor would contribute to the harm its actions would cause); Eyherabide, 345 F.2d at 570 ("[T]he Government must be held responsible for the foreseeable consequences [of its actions] to the [plaintiff's property]."); Richard, 282 F.2d at 904 ("[D]efendant did contemplate the possible taking of an interest in the [plaintiff's property]."); Columbia Basin, 132 F.Supp. at 709-10 (quoting foreseeability language from *Horstmann* and *Sanguinetti* related to implied contract takings); *Cotton* Land, 75 F.Supp. at 233-34 ("[I]n the law of torts, the remoteness is usually produced by some unforeseeable or so-called intervening cause, which is said to break the chain of legal connection between the defendant's act and the plaintiff's loss ... If engineers had studied the question in advance they would, we suppose, have predicted what occurred."); Bettini, 4 Cl. Ct. at 760-61 ("If plaintiff can show that the direct, foreseeable, and almost inevitable consequence" of the government action would be the invasion of the plaintiff's property, "then recovery based on inverse condemnation may be had."); Baird, 5 Cl. Ct. at 330 ("Essentially, therefore, the probability and foreseeability of the damage is a primary determinative element in whether a taking or a tort occurred."); Berenholz, 1 Cl.Ct. at 628 (quoting Pete v. United States, 531 F.2d 1018, 1035 (1976)) ("Even though the Government did not intend to appropriate [the property], the interference ... was seen as a 'foreseeable consequence of a deliberately conceived governmental program.").

If properly understood and applied, foreseeability is a well-established aspect of causation analysis. When properly applied to causation, "foreseeability" involves an objective evaluation and forces the question "Could this outcome have been foreseen?" However, foreseeability can also be easily misapplied to incorporate a subjective element, as a sort of analogue to specific intent. Such a misapplication of foreseeability in a causation analysis is not entirely surprising, given the proximity of subjective foreseeability and intent in the implied contract analysis that prevailed in the Court of Claims for so long. Courts must therefore be vigilant to properly apply only the objective standard of foreseeability in a causation analysis, lest the causation analysis itself become bogged down by the elements of a subjective evaluation.

Cotton Land, the plaintiff's property was flooded by the construction of Parker Dam in Arizona. Cotton Land, 75 F.Supp. at 233. The defendant argued that "where the owner's loss can be traced to the Government's act only through ... a chain of events ... the loss is consequential and, therefore not compensable." Id. The court ultimately rejected this argument, concluding that because the plaintiff's loss "resulted naturally from the government improvement," it was not a mere consequential injury. Id. at 235. The court observed that tort law sometimes relies on the concept of foreseeability to distinguish direct from consequential injury. Id. at 233. "If engineers had studied the question in advance," the court supposed, they would "have predicted what occurred." Id. The concept of foreseeability in that case, then, was used as a tool to establish the bounds of proximate causation.

However, *Cotton Land*'s reference to foreseeability should not be read too broadly. The court acknowledged that the concept of legal causation was "necessarily vague." *Id.* Furthermore, the court acknowledged that foreseeability is not the exclusive means of establishing legal causation. *Id.* Indeed, in addition to characterizing the harm to the plaintiff's property as foreseeable, the *Cotton Land* court also considered plaintiff's harm to be the "natural consequence[]" of the defendant's actions. *Id.* Those concepts are related: unforseen circumstances can be equated with intervening causation—a concept that deals with clear interruptions of the proximate causal chain. *Id.* Thus, *Cotton Land* did not establish a rigid rule requiring proof of either intent or foreseeability in every physical invasion or destruction takings case.

Interestingly, *Cotton Land* acknowledged the history behind the causation issue in takings law and observed: "We think that the tendency in some cases to find remoteness may have resulted from confusion with regard to the extent to which the Government has by statute, consented to be sued." *Id.* at 234. After briefly reviewing the history of implied contract takings in the Court of Claims, *Cotton Land* acknowledged that it was not necessary "to find that the [g]overnment's agents were aware that their acts would result in a taking" for the court to exercise jurisdiction over the case. *Id.* at 234-35. Thus *Cotton Land* was well aware of the profound limitation that implied contract takings had imposed on the ability of plaintiffs to establish an entitlement to compensation by proving simple causation.⁴⁶

⁴⁶ Other cases refer to foreseeability in the context of a causation analysis. The court in *Eyherabide* observed that while some harm to the plaintiff's property was directly attributable to government actions, other harm may have occurred because government actions rendered it impossible for the plaintiff to maintain a caretaker on its property. *See* 345 F.2d at 570. In the absence of caretakers, vandals may have entered the property and caused some of the harm for which plaintiff was seeking compensation. *See id.* The court concluded "in these circumstances, the Government must be held responsible for the foreseeable consequences to the [plaintiff's property]." *Id.* "That loss was not 'consequential damage,' as the term is used in the law of eminent domain, but a direct physical invasion assignable to, because the direct product of, the dominion exercised over the tract by [the defendant]." *Id.*

In *Barnes*, the defendant argued that a newly formed river delta and not its own actions caused the plaintiff's property to flood. The court rejected that argument because the government "actually foresaw" and "anticipated" that its actions would trigger the formation of the delta that ultimately contributed to the flooding of the plaintiff's land. *See Barnes*, 538 F.2d at 872-73. The court also deemed the harm be the natural consequence of the defendant's actions: "We held [in *Cotton Land*] for the plaintiff because, owing to authorized Government action, ... a succession of events was initiated which, when the events had all occurred in their natural order, deprived the company of the beneficial use of its land." *Id.* at 871-72. *See also Berenholz*, 1 Cl. Ct. at 624-25; *Baird*, 5 Cl. Ct. at 330 (noting that "the probability and foreseeability of the damage is a primary determinative element in whether a taking or a tort occured" but concluding that no takings liability existed because the property was damaged by "a random event induced more by natural phenomenon than by Government interference").

By contrast, *Columbia Basin* used the foreseeability concept to strengthen its conclusion that the government acted without an subjective intent: "it would border on the extreme to say that the government intended a taking by that which no human knowledge could even predict. ... This comment is of especial pertinence that the result of the government's work to the properties of plaintiffs could not have been foreseen or foretold." 132 F.Supp. at 709-10 (quoting *Horstmann*, 257 U.S. at 146). As noted above, *Columbia Basin* stated that either government intent "to take plaintiff's property or an intention to do an act the natural consequence of which was to take its property" was sufficient (along with substantial harm) to establish a compensable taking. *Id.* Even though it correctly stated the disjunctive test that would eventually appear in *Ridge Line*, *Columbia Basin*'s discussion of foreseeability in relation to specific intent laid the groundwork for future confusion regarding the role of foreseeability in the causation analysis.

6. Ridge Line Resolves the Tension of Divergent Takings Analyses

While the tort-taking distinction test was relatively mature by the time that the Federal Circuit took up the issue in *Ridge Line*, the casualness that some courts had used in their terminology to distinguish the role of intent versus the role of causation, including the relative role of subjective versus objective foreseeability created some tension or confusion between the scope of the two divergent analyses. To the extent that the prior iterations of the tort-taking distinction test were confusing or limited to only a single analysis (intent or causation), *Ridge Line* unambiguously incorporated both analyses and construed them in light of one another. In a sense, *Ridge Line* represents the culmination of decades of takings jurisprudence.

The plaintiff in *Ridge Line* owned real estate "on which is located … the largest shopping center and mixed-use commercial development in West Virginia." 346 F.3d at 1350. The U.S. Postal Service constructed a "Service Center" adjacent and uphill from the plaintiff's property. *Id.* at 1351. This construction dramatically increased storm water runoff into South Hollow, part of which the plaintiff owned and which was located between the shopping center and the service center. *Id.* The excessive run-off caused flooding and soil erosion on plaintiff's property and other downhill land. *Id.* Eventually, the plaintiff took measures to control this flooding and returned much of its property to its pre-flood condition. *Id.* After the government refused to share in the costs that the plaintiff incurred due to the flooding, the plaintiff filed a takings claim. *Id.*

After a full trial, the Court of Federal Claims concluded that even though the water "invaded" the plaintiff's property from time to time, the plaintiff was not entitled to compensation. *Id.* at 1352. Focusing exclusively on whether the plaintiff suffered a permanent and exclusive occupation, the court did not consider the plaintiff's claim that the defendant had appropriated a "flowage easement by inverse condemnation." *Id.* The plaintiff appealed, and the Federal Circuit ultimately reversed.

The *Ridge Line* decision held that the trial court should have considered the plaintiff's inverse condemnation claim. *Id.* at 1354. To reach this conclusion, the Federal Circuit pointed out that a permanent occupation need not be exclusive or continuous. *Id.* (citing *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825, 831-32 (1987); *Loretto*, 458 U.S. at 436-38). The court also noted that it "is well established that the government may not take an easement without just compensation." *Id.* (quoting *Dickinson*, 331 U.S. at 748). Moreover, the court ruled that the restoration of the plaintiff's property did not preclude a finding of liability—and that the costs actually incurred by the plaintiff

could serve as an appropriate measure of damages. *Id.* at 1354-55. Thus, *Ridge Line* remanded for consideration of whether the government had taken a flowage easement on the plaintiff's property. *Id.* at 1354.

In evaluating whether a taking occurred, the Federal Circuit indicated that the plaintiff would have to "establish that treatment under takings law, as opposed to tort law, is appropriate under the circumstances." *Id.* at 1355. As an initial matter, the court indicated that plaintiff must demonstrate whether the "effects [plaintiff] experienced were the predictable result of the government's actions, and whether the government's actions were sufficiently substantial to justify a takings remedy." *Id.* Provided that the plaintiff could meet that threshhold, the court instructed that a second inquiry would require the plaintiff to demonstrate "that it possessed a protectable property interest in what it alleges the government has taken." *Id.* This two-part inquiry is consistent with the analysis espoused by *Adams. See Adams*, 391 F.3d at 1218 (requiring a plaintiff to demonstrate (1) a relevant property interest and (2) a government action that has resulted in a taking).

The *Ridge Line* court then elaborated on the standard that is invoked when a plaintiff tries to satisfy the tort-taking distinction test:

The line distinguishing potential physical takings from possible torts is drawn by a two-part inquiry. First, a property loss compensable as a taking only results when the government intends to invade a protected property interest or the asserted invasion is the direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action. . . . Second, the nature and magnitude of the government action must be considered.

Ridge Line, 346 F.3d at 1355 (quotation and citations omitted). The first prong of this "two-part inquiry" is really comprised of two sub-parts. It is in this iteration of the tort-taking distinction that the Federal Circuit explicitly recognized and applied the two lines of takings jurisprudence in this Circuit, one premised on subjective intent and the other on objective causation. The most notable facet of this characterization is the fact that the court employed the disjunctive ("or") rather than the conjunctive ("and") to relate the sub-parts of this first prong. The implication of the disjunctive, of course, is that the individual sub-parts (intent or causation) are each sufficient grounds upon which to predicate a takings claim. Provided that one of the two sub-parts is demonstrated, there is no requirement that the other also be satisfied. Accordingly, a plaintiff can establish a takings claim by proving causation without also proving intent.

The plaintiff in *Ridge Line* did not allege that the government "intentionally appropriated" the property. *Id.* at 1536. This was not fatal to its claim, however. Instead, the trial court was instructed on remand to "first determine whether Ridge Line proved that the increased storm runoff was the direct, natural, or probable result of the Postal Service development, rather than merely an incidental or consequential injury." *Id.* The court was also instructed to "determine whether the increased runoff on the claimants property was the predictable result of the government action." *Id.* (citing *Sanguinetti*, 264 U.S. at 149-50).

The standard of "predictability" that the Federal Circuit referred to, as part of the causation analysis to be conducted on remand, was an objective inquiry that did not implicate the subjective

intent, knowledge or foresight of the government. The Federal Circuit cited *Horstmann* for the proposition that if the damage "could not have been foreseen or foretold" than the causal chain would be interrupted. *Id.* (citing *Horstmann*, 257 U.S. at 142-43). "However, where the construction and operation of a dam initiated a series of events, all . . . in their natural order, by which the landowner was deprived of the beneficial use of portions of its land, a taking was found." *Id.* (citing *Cotton Land*, 75 F. Supp. 232 at 232-35). It is clear that the court was not concerned with whether the *Ridge Line* defendant had actually foreseen the potential harm posed to plaintiff's land; the court eschewed any subjective evaluation. This is plainly evident by the Federal Circuit's invocation of and reliance on *Cotton Land*'s discussion of an objective predictability of likely harm:

If engineers had studied the question in advance they would, we suppose, have predicted what occurred. If they had studied the question in advance and had said, in a report, "If you build Parker Dam to a crest of 450.4 fee, the pool will cover the land described below. The effect of the flow of the river into the pool will be to form a delta which, whithin approximately three years will raise the bed and the surface of the river, will cause it to overflow its banks and will thus inundate the lands described below," would the fact of that formal forewarning be a decisive fact in such a case as this? Should the fact that the engineering study was not so complete as to include a prediction as to lands beyond the bed of the reservoir prevent a court from looking at the actual and natural consequences of the Government's act?

Id. (quoting Cotton Land, 75 F. Supp. at 232-35).

As to the second prong of the tort-taking analysis, the trial court was instructed to evaluate the nature and the magnitude of the government action. "Even where the effects of the government action are predictable, to constitute a taking, an invasion must appropriate a benefit to the government at the expense of the property owner, or at least preempt the owner[']s right to enjoy his property for an extended period of time, rather than merely inflict an injury that reduces its value." *Id.* This brief discussion of the "substantiality" prong of the tort-takings analysis is consistent with well-established takings jurisprudence.⁴⁷

While the substantiality prong of the *Ridge Line* test has not been explored in detail above (see the discussion of *Cress* above), it is important to note that substantiality of harm lies at the core of the distinction between torts and takings. Whether a plaintiff establishes a predicate to a taking by proving either intent or causation, the substantiality of the harm cannot be overlooked.

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⁴⁷ See, e.g., Vaizburd, 384 F.3d at 1283; Ridge Line, 346 F.3d at 1356; Sun Oil Co., 572 F.2d at 818; Barnes, 538 F.2d at 872; National By-Products, 405 F.2d at 1273-74; Eyherabide, 345 F.2d at 569; Drury, 52 Fed. Cl. at 403-04; Boling, 41 Fed. Cl. at 679, rev'd on other grounds; BMR Gold Corp., 41 Fed. Cl. at 282; B.W. Parkway, 29 Fed. Cl. at 676-77; Poorbaugh, 27 Fed. Cl. at 631; Bagwell, 21 Cl. Ct. at 726; Clark I, 8 Cl. Ct. at 651; Bettini, 4 Cl. Ct. at 758; Baird, 5 Cl. Ct. at 329; Berenholz, 1 Cl.Ct. at 626.

7. Moden and the Struggle to Apply the Ridge Line Test

Even after *Ridge Line*, courts continue to grapple with the role of foreseeability in the causation analysis. In part, defendant in this case relies on one recent decision of this court to establish that subjective foreseeability is a relevant issue to any causation analysis. In *Moden v. United States*, 60 Fed. Cl. 275 (2004),⁴⁸ the plaintiffs owned land near Ellsworth Air Force Base in South Dakota. *Id.* at 276. The plaintiffs claimed a taking by inverse condemnation through groundwater contamination involving trichloroethylene ("TCE"), a possible carcinogen. *Id.* at 276, 279. Defendant contended that the plaintiff had stated only a tort claim. *Id.* at 280-81.

The parties agreed that the contamination could have resulted from aircraft maintenance performed on the base in 1940's and 1950's. *Id.* During that time, defendant used a mixture of TCE and oil to clean aircraft parts in a hangar on the base. *Id.* The TCE mixture was removed from the aircraft by pressurized water, and the residue drained into an underground collection and drainage system and ultimately to a water treatment plant. *Id.* The storage and use practices at the Base met or exceeded the requirements for use and storage of chemicals. *Id.* There was no evidence that the contamination resulted from deliberate or accidental dumping. *Id.* Furthermore, the court noted that "TCE and its effects probably were unknown" at the time the chemical was used as a cleaning agent. *Id.*

Moden invoked Ridge Line's tort-taking distinction test and noted that plaintiffs had not alleged an intentional appropriation. See id. at 282. Turning to a causation analysis, the court concluded that plaintiff failed to prove causation. This conclusion, however, was the result of a determination by the court that the plaintiffs failed to prove a requisite element of causation because plaintiff could not show that the government's actions were "predictable" in the sense that its agents knew or should have known that harm would result from their actions. With all due respects to the court, this is a categorical mistake: foreseeability was impermissibly here equated with specific intent

⁴⁸ The court asked the parties to address whether it should stay proceedings in this case pending the appeal of *Moden* in the Federal Circuit. Plaintiff opposes such a stay because it contends that *Moden*'s approach to the distinction between torts and takings is an incorrect statement of the law. Pl. Supp. Memo. of November 4, 2004 at 5. Plaintiff also argues that the facts in this case are distinct from those in *Moden*. Defendant favors a stay of proceedings, arguing that a stay would preserve judicial resources and avoid reaching a decision that could be inconsistent with the Federal Circuit's decision on appeal. D. Supp. Memo. of November 9, 2004 at 13-15.

[&]quot;The power to stay proceedings is incidental to the power inherent in every court to control the disposition of the causes on its docket with economy of time and effort for itself, for counsel, and for litigants," and is within the discretion of the court. *Landis v. North American Co.*, 299 U.S. 248, 255 (1936). The court concludes that a stay would be inappropriate because the facts of this case are not entirely analogous to those in *Moden*. Even if the court were to apply *Moden*'s erroneous foreseeability analysis to this case, which this court is not apt to do, it appears that the plaintiff has presented sufficient evidence to satisfy even *Moden*'s narrow tort-taking analysis.

and not causation.49

This is clearly demonstrated by the court's extensive analysis of the role that predictability, or foreseeability, plays in *Ridge Line*'s causation analysis *Id.* at 283-85 (citing *Barnes*, 210 Ct. Cl. 467; *Eyherabide*, 170 Ct. Cl. 598; *Columbia Basin*, 132 Ct. Cl. 445; *Bettini v. United States*, 4 Cl. Ct. 755 (1984); *Baird*, 5 Cl. Ct. 324). The court identified three factors related to the foreseeability analysis that had to be satisfied: first, the government would have had to know at the time that TCE was a component of the cleaning agents, *id.* at 285; second, plaintiffs would have to show that the release of the cleaning agents into the groundwater was foreseeable, *id*; and, finally, plaintiffs would have to show that "the government *should* have foreseen that the contaminant would naturally migrate towards plaintiffs' property," *id.* at 285-86 (emphasis added).

But these apply "foreseeability," not to a determination of the predictability of whether the government's actions *caused* the harm in question, but, rather, to whether the government's agents did or should have known that their actions would result in harm. This is sometimes a fine distinction, and, indeed, facts that could prove the former often can be used to prove the latter. But, causation and specific intent are different concepts—which is why *Ridge Line* stated the first prong of the torts-taking distinction test in the disjunctive. *See Ridge Line*, 346 F.3d at 1355 ("[A] property loss compensable as a taking only results when the government intends to invade a protected property interest or the asserted invasion is the direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action."). To quote Professor Prosser regarding causation in general: "There is perhaps nothing in the field of law which has called forth more disagreement, or upon which the opinions are in such a welter of confusion." PROSSER AND KEETON at 263.

C. Plaintiff's Evidence is Sufficient to Satisfy the Torts-Takings Jurisdictional Requirement on Summary Judgment

In light of the foregoing discussion of the causation analysis in takings jurisprudence and this court's interpretation of *Ridge Line*, the court must deny defendant's motion for summary judgment in so far as it argues that plaintiff has stated a tort claim that deprives the court of jurisdiction. Plaintiff has produced sufficient evidence for the court to conclude that genuine issues of material fact preclude summary judgment under the tort-taking distinction test described above. Simply put, the evidence in the record clearly indicates that the EDB contamination on the ranch constitutes a permanent and substantial invasion that was the direct, natural, or probable consequence of intentional and authorized government actions.

Before the court explains this conclusion, it is helpful here to once again restate the bifurcated *Ridge Line* test:

⁴⁹ See Portsmouth, 260 U.S. at 328-30 (ruling that proof of causation of a substantial injury to property is sufficient to establish a compensable takings claim); *Id.* at 330-40 (dissenting opinion contending that the majority erroneously failed to require proof of subjective intent due to implied

contract takings jurisprudence). See also the discussion of *Portsmouth* above.

First, a property loss compensable as a taking only results when the government intends to invade a protected property interest or the asserted invasion is the direct, natural, or probable result of an authorized activity and not the incidental or consequential injury inflicted by the action. . . . Second, the nature and magnitude of the government action must be considered.

Ridge Line, 346 F.3d at 1355 (emphasis added).

For simplicity's sake, the court will consider the second part of the *Ridge Line* test (the "substantiality" prong) first to determine whether plaintiff's property has suffered a substantial invasion. Of this, there is no real argument. Two of the ranch's wells, the Old and New 4T Wells, have been contaminated by EDB. The fact that EDB contamination in underground water will persist for an indefinite period, at least several years, is undisputed. Moreover, the parties do not dispute that EDB-contaminated water is not only undrinkable, but also unsafe to use for other purposes (such as bathing or washing a car) as well. Thus, it is abundantly clear that the EDB contamination of the ranch constitutes a substantial and permanent invasion.

Turning to first part of the *Ridge Line* test, explicitly the "causation" prong of this test, it is undisputed that the Forest Service used and stored EDB at the Work Center in the 1970's. Mr. Showman's memo and the notes from the Forest Service interviews with its former employees indicate that Forest Service employees both buried and spilled substantial quantities (easily enough to cause the contamination at issue) of EDB on the Work Center property in the mid-1970's. Furthermore, the Forest Service has taken substantial efforts to detect, locate, and clean-up the EDB contamination—and to provide water to some Nemo residents. From these actions, the inference may be drawn that the Forest Service itself has acknowledged that it caused the EDB contamination of the Nemo area.

For defendant, Forest Service employees stated that the EDB that Forest Service employees buried and spilled at the Work Center may not have been the source of the EDB on the ranch. Specifically, they asserted that a gas tank at the ranch that apparently leaked and had to be replaced may have been the source of the contamination. However, this bald assertion was unsupported by any other evidence. Similarly, Forest Service employees stated that it is at least possible that the Forest Service did not cause the EDB contamination. However, such statements conflict with the reports prepared by the Forest Service's *own* environmental consultants, which place the core of the contamination plume at the Work Center. It is true that the plume and the source are not the same thing; however, a rational inference may be drawn that the location of the plume directly relates to the source of the contamination. It is clear that defendant's environmental consultants assumed as much. *Res ipsa loquitur*.

Finally, plaintiff's expert Dr. Davis, based on his expertise and review of the situation, stated:

it is my opinion that the EDB contamination under the Nemo Guest Ranch is the natural and probable consequence of the activities of the United States Forest Service. The knowledge of the nature of the geology of the Nemo area prior to 1970 was such that it was foreseeable that EDB storage, use, and disposal at the workstation, which allowed EDB to come in contact with the ground, would result in the contamination of the bedrock aquifer and that

the contamination plume would eventually extend under the Nemo Guest Ranch.

Similarly, Dr. Davis stated: "[t]here was nothing surprising or unusual about the plume having moved down gradient, toward the creek, spreading under the Nemo Guest Ranch."

As far as Ridge Line's causation element is concerned, defendant has failed to demonstrate to the court the absence of a genuine issue of fact. Much to the contrary, the evidence seems to indicate that the contamination of the ranch is the direct, natural, and probable result of the government's use and disposal of EDB at the Work Center. Several pieces of evidence before the court—including the undisputed fact that the Forest Service used and stored EDB at the Work Center, Mr. Showman's Memo, the notes from the interviews of former Forest Service employees, the manner in which the Forest Service assumed responsibility for the contamination, and the location of the core of the contamination plume at the Work Center—indicate that defendant dumped EDB at the Work Center. Also, it is undisputed that two of plaintiff's wells are now contaminated with EDB. Plaintiff alleges that a natural chain of events establishes a direct causal link between the EDB contamination of his wells and the EDB dumping undertaken by the Forest Service. This natural chain of events involves the seepage of EDB (that was spilled or poured directly into the ground, buried in unsealed, corroded containers, or both) into underground water and the movement of that contaminated water down gradient to plaintiff's property. Indeed, plaintiff's expert, Dr. Davis, states that such a natural chain of events between dumping and contamination can be established in this case. Given these allegations, each of which is supported by record evidence, plaintiff shall have the opportunity to prove causation at trial.

Furthermore, even under *Moden*'s narrow foreseeability iteration of the *Ridge Line* test, the court would be compelled to deny defendant's motion for summary judgment based on its argument that plaintiff's claim sounds in tort. As discussed, defendant primarily argues that it could not have foreseen the consequences of its actions rest on factual contentions that there was no specific knowledge regarding Nemo-area geology or the harmful nature of EDB in the mid-1970's. Defendant specifically contends that until the EPA regulation of EDB in the 1980's, the Forest Service had insufficient knowledge to foresee that its use and disposal of EDB would cause the contamination of the ranch.

However, plaintiff's experts sharply disagree. Dr. Davis opines that based on the knowledge of Nemo-area geology available before 1970, it was foreseeable that allowing EDB to come in contact with the ground would result in the contamination of the bedrock aquifer below the Work Station, which would eventually spread to the ranch. Likewise, Dr. Webb stated that two federal agencies other than EPA, the National Cancer Institute and National Institute of Occupational Safety and Health, had issued statements regarding the harmful nature of EDB in the mid-1970's.

The EPA issued a health advisory regarding EDB's carcinogenic and other potential harmful effects on March 31, 1987. However, this was not the first administrative action EPA took regarding EDB. The EPA ordered an immediate emergency suspension of EDB as a soil fumigant of agricultural crops in September of 1983. Prior to this action, the EPA had considered in detail the dangers posed by EDB. In October 1983, the EPA issued a notice regarding its intent to cancel EDB's registration under the Federal Insecticide, Fungicide, and Rodenticide Act. Notice of Intent to Cancel, 48 Fed. Reg. 46,234-01 (Oct. 11, 1983). In this notice, EPA stated: "[EDB] has long been

known to present a risk of serious acute toxicity, including death, at even relatively low levels of exposure." *Id.* at 46,236. Moreover, the EPA concluded: "EDB poses: (1) Increased risk of cancer; (2) increased risk of mutations; (3) increased risk of adverse reproductive effects." *Id.* This conclusion was based on the results of several scientific studies, including five dated to 1975 or earlier. *Id.* After reviewing the risks of EDB in concrete terms, the EPA notice stated: "The use of EDB as a pesticide poses significant risks ... to the general public from contamination of food and groundwater used for drinking." *Id.* at 46,239.

In addition to the fact that scientific studies demonstrating EDB's harmfulness had been published in the mid-1970's, the nature of EDB itself poses a further problem for defendant's narrow foreseeability argument. The Forest Service used EDB, which it often mixed with diesel fuel, as a pesticide. The essential characteristic of pesticide, of course, is its capacity to kill. Even if the Forest Service believed that EDB was perfectly safe for use as a pesticide in the mid-1970's, it does not follow that the Forest Service could reasonablely believe that EDB was safe for human consumption in well water. Much to the contrary, statements recorded in the notes from the interviews of Forest Service employees evidence a keen awareness in the mid-1970's that EDB was a noxious poison. Indeed, more than one employee observed that EDB had eaten holes through his boots in a short period of time.

Thus, EDB had long been known for its acute toxicity in 1983 according to the EPA. Moreover, scientific studies had demonstrated the harmfulness of EDB by the 1970's. Notably, federal agencies other than the EPA publicized the risks of EDB demonstrated by these studies in the mid-1970's. *See* Pl. App. at 402. And finally, the fact that EDB was an effective pesticide alone may have been sufficient to conclude that defendant could have foreseen that dumping EDB at the Work Center would contaminate the ranch's groundwater. Under these circumstances, at a minimum, a genuine issue of material fact remains regarding whether defendant was aware of the harmfulness of EDB—and thus should have foreseen the harm caused by the dumping of EDB on property adjacent to the ranch.

To summarize, the evidence indicates that the ranch has sustained a permanent and substantial invasion in the form of EDB contamination. Moreover, the evidence indicates that this invasion was the direct, natural, and probable result of defendant's actions. The facts above make it clear that, even if the court were to apply the specific intent foreseeability analysis relied on in *Moden*, plaintiff has presented sufficient facts that create a genuine factual controversy for trial regarding this issue. Clearly, genuine issues of material fact remain regarding both parts of the torttaking distinction test. Therefore, summary judgment on defendant's argument that plaintiff's claim sounds in tort is not appropriate at this time. ⁵⁰

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⁵⁰ Defendant's other arguments (that the subsequent sale of the ranch indicates there was no taking, that the difference in what plaintiff paid for the ranch and what he sold it for is indicative of a tort, that plaintiff actually seeks damages for a lost business opportunity) require no discussion here because they are not relevant to the tort-taking distinction test. These arguments may or may not be relevant to just compensation, which the court does not address here. Furthermore, it is unclear whether defendant's argument that, if anything, plaintiff has suffered a *de minimus* taking simply relates to just compensation—or whether it was meant to be an argument regarding the substantiality of the harm under the tort-taking distinction test. To the extent that this is a substantiality argument,

D. Plaintiff's Property Interest in the Ranch and the Contaminated Groundwater – *Dickinson*, Ripeness, and Standing

If the tort-taking inquiry reveals that a takings remedy is "potentially available" the court must thereafter determine if the plaintiff "possesse[s] a protectable property interest in what it alleges the government has taken. *Ridge Line*, 346 F.3d at 1355 (citing *Murray v. United States*, 817 F.2d 1580, 1583 (Fed. Cir. 1987). The court thus turns to plaintiff's property interest in the ranch at the time of the alleged taking and particularly the water rights associated with the ranch. Because plaintiff alleges that defendant contaminated the groundwater upon which the ranch's operations depend, plaintiff's property interest in that water is central to this case. Furthermore, because plaintiff contends that a plume of contamination is steadily spreading and destroying his property, the issue of ripeness is inexorably linked both conceptually and factually to the existence of a property interest safeguarded by the Taking Clause of the Fifth Amendment, as is the derivative issue of standing relating both to general federal standards and to South Dakota property law.

As a general matter, courts have long recognized water rights as a form of property protected by the Fifth Amendment and other laws. As early as 1893, the Supreme Court ruled: "a well of water is property recognized by the law, any injury to which is redressible by law. To pollute or foul the water of a well is an actionable injury." **I United States v. Alexander*, 148 U.S. 186, 191-92 (1893). Similarly, the Court has concluded that rights to water obtained through U.S. Bureau of Reclamation irrigation projects are private property held by those who obtained them through prior appropriation for a beneficial use. For example, *Ickes v. Fox*, 300 U.S. 82 (1936), rejected the government's argument that it owned the rights to water that it "diverted, stored, and distributed." *Id.* at 94. Instead, *Ickes* concluded that under the relevant federal and state law, the water rights at issue "became the property of the landowners." *Id.* at 95; *see also Nevada v. United States*, 463 U.S. 110, 126 (1983); *Nebraska v. Wyoming*, 325 U.S. 589, 614 (1945).

This court has concluded that water rights are property protected by the Fifth Amendment in some notable cases. *Hage v. United States*, 35 Fed. Cl. 147 (1996), involved a claim that the government had taken the plaintiff's water rights both by regulatory and physical actions (*i.e.*, "cancelling and suspending [the plaintiffs'] permit and diverting and using their water"). *Id.* at 156. In *Hage*, this court rejected the argument that water rights were "limited, usufructuary rights" not entitled to Fifth Amendment protection. *Id.* at 172. "[W]ater rights are not 'lesser' or 'diminished' property rights unprotected by the Fifth Amendment." *Id.* On the contrary, *Hage* concluded: "Water rights, like other property rights, are entitled to the full protection of the Constitution." *Id.* Likewise, in *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001), the plaintiffs claimed that the Bureau of Reclamation's decision to reduce water outflows for the preservation of

a characterization of the EDB contamination of two of the ranch's wells as *de minimus* does not change the fact that such contamination is both permanent and substantial in character (see discussion above). To the extent that defendant's *de minimus* argument goes to just compensation, the court does not address it here.

⁵¹ *Alexander* acknowledged that the plaintiff's claim could have raised constitutional takings issues, but concluded that "the act of congress under which this public work was done" provided a remedy for plaintiff. *Id.* at 187-88.

a few species of fish deprived them of their water rights without just compensation. *Id.* at 314-15. This court granted summary judgment in favor of the plaintiffs, concluding that "the government is certainly free to preserve the fish; it must simply pay for the water it takes to do so." *Id.* at 324.

It is well accepted that law other than the Constitution itself, often state law, defines what property is. *See Palazzolo*, 533 U.S. at 626-27. Thus, turning to South Dakota law, it is clear that water rights—a vested right to 26 gallons per minute with a priority date of January 1, 1946—are a significant part of the ranch property. South Dakota water law is a hybrid water rights system that combines riparian and prior appropriation elements. *See* John H. Davidson, *South Dakota Groundwater Protection Law*, 40 S.D. L. REV. 1, 7 (1995) (hereinafter "*Davidson*"). This system developed in response to the water situation settlers encountered as they spread across the state from east to west: eastern South Dakota apparently has sufficient water to sustain a riparian system, while an appropriation regime was better suited to the state's arid western areas. *See id*. The South Dakota territorial legislature codified riparian law in 1866 and classified riparian water rights as real property rights. *Id*. In 1881, however, the territorial legislature passed a law providing that water disputes were to be adjudicated based on the date of appropriation. *Id*.

In 1907, the South Dakota legislature restructured the state's water law system, establishing that all water in the state was public property, subject to appropriation for beneficial use. *Id.* The new law required users to apply for a state permit before appropriating any water, and required parties to any water dispute to pay a state engineer to complete a survey of the water in question. *St. Germain Irrigating Co. v. Hawthorn Ditch Co.*, 143 N.W. 124, 126-27 (S.D. 1913). Adjudicating a dispute between various claimants to creek water, the South Dakota Supreme Court ruled that the law was unconstitutional as applied to vested riparian water rights. *Id.* at 127. The court emphasized that vested property rights in water could not be taken by the state without compensation, regardless of whether the rights were founded on the riparian or the prior appropriation doctrine. *See id.*

The South Dakota legislature again revised the state's water law system in 1955. *Davidson* at 7-8. This legislation recognized water rights vested at the date of its enactment, while requiring that all new water rights had to be established by appropriation for beneficial use following certain procedures. *Id.* at 8.

The plaintiff in *Knight v. Grimes*, 127 N.W.2d 708 (S.D. 1964), challenged the constitutionality of the 1955 statutes, seeking a declaratory judgment that the law violated both the Fifth Amendment and the takings provision of the South Dakota constitution. Before the 1955 revision of South Dakota water law, landowners owned groundwater underlying their property that did not form "a definite stream." *Id.* at 708-9. In contrast, the 1955 revision required landowners to obtain state approval (except for in cases of domestic use) and put such groundwater to beneficial use before they could obtain a vested right in it. *Id.* at 710. While the South Dakota Supreme Court acknowledged that "there has been an invasion of a pre-existing right or interest," it still concluded that the 1955 revision was a proper police power regulation of property. *Id.* at 711-14.

Finally, in *Parks v. Cooper*, 676 N.W.2d 823 (S.D. 2004), a recent case involving surface water, the South Dakota Supreme Court held that the Desert Land Act of 1877 had limited the water rights of settlers to that water which they actually appropriated for beneficial use, freeing the remaining water for the use of the public. *Id.* at 832. Therefore, all South Dakota water belongs to

the people in accordance with the public trust doctrine, by which the state holds the water in trust for the public. *See id.* at 837. Addressing the status of water not subject to vested water rights and put to beneficial use, this ruling did not undermine water rights established under the South Dakota water law system described above. *Id.* at 837-41.

The present statutory scheme mirrors the legal situation described in the preceding review of the key South Dakota water law cases. "[A]ll water within the state is the property of the people of the state, but the right to the use of water may be acquired by appropriation as provided by law." S.D. Codified Laws § 46-1-1. The appropriation of groundwater is permitted, subject to vested rights and prior appropriations, in accordance with the state's water management rules. *Id.* at § 46-6-3. A groundwater right is vested if the water was put to beneficial use before February 28, 1955. *Id.* at § 46-6-1.

Plaintiff has presented to the court an affidavit of Garland Erbele, the Chief Engineer of the Water Rights Program of the South Dakota Department of Environment and Natural Resources. Attached to this affidavit is a document issued by that agency purporting to "validate" the water right associated with the ranch. This document describes this water right in the following terms: (a) it "appropriates 26 gallons per minute," (b) it is for "supplying water to the guest ranch and may not exceed the amount of water needed for beneficial use for commercial purposes," and (c) "[t]he priority date of the Vested Water Right is January 1, 1946." Consistent with the relevant statutory scheme, this document indicates that because they were put to beneficial use before February 28, 1955, plaintiff's water rights are a vested property interest under South Dakota law. *St. Germain*, which prohibited the taking of vested water rights without just compensation, also indicates that these water rights are property interests protected by law. 143 N.W. at 127.

1. Ripeness and Dickinson

It is also clear that the interference with plaintiff's use of water certainly could rise to a taking of the entire landed estate. That is, similar to the plaintiff in *Clark I*, if plaintiff "can prove ... that seepage from the government's chemical dump renders [the] water supply useless [in *Clark I* for residential, in this case for commercial] purposes, this may render the entire property unusable...." *Clark I*, 8 Cl. Ct. at 652. Alternatively, as in *Clark I*, plaintiff "may be able to prove the taking of an easement in the property or its subjection to a servitude which partially destroyed its value. This would entitle [plaintiff] to damages under the Fifth Amendment." *Id*.

Like the claim in *Clark I*, plaintiff's claim involves some complexity due to the nature of the invasion in this case: a plume of noxious contaminants allegedly spreading across plaintiff's property. Plaintiff correctly relies on *United States v. Dickinson*, 331 U.S. 745 (1947), and its progeny, for support. This *Dickinson* claim is tied to the concept of ripeness, for plaintiff here must demonstrate that any harm resulting from the contamination must be substantial, continuous and reasonably foreseeable. *See Ridge Line*, 346 F.3d at 1355.

Dickinson itself was a flooding case in which the government took property through a "continuing process of physical events." *Dickinson*, 331 U.S. at 749. The Court ruled that under such circumstances—because the government had put the "onus of determining the decisive moment

in the process of acquisition by the United States" on the owner—the owner was permitted to postpone filing suit "until the situation [became] stabilized." *Id.* at 748-49. In explaining this rule, Justice Frankfurter in *Dickinson* emphasized that: "[t]he Fifth Amendment expresses a principle of fairness and not a technical rule of procedure enshrining old or new niceties regarding 'causes of action'—when they are born, whether they proliferate, and when they die." *Id.* at 748. Thus, *Dickinson* warned against applying an excessively rigid rule when the government takes property through a gradual physical process. *Id.* at 749; *see also Ridge Line*, 346 F.3d at 1353 ("...government actions may not impose upon a private landowner a flowage easement without just compensation," citing *Dickinson*, 331 U.S. at 750-51).

The *Dickinson* stabilization doctrine determines when the statute of limitation on continuing physical process takings claims begins to run. The *Dickinson* Court stated: "when the Government chooses not to condemn land but to bring about a taking by a continuing process of physical events, the owner *is not required* to resort either to piecemeal or to premature litigation to ascertain the just compensation for what is really 'taken." *Id.* (emphasis added). Moreover, the *Dickinson* Court acknowledged it did not "decide whether in a situation like this a landowner might be allowed to bring suit as soon as inundation threatens." *Id.* The Court acknowledged that such litigation may have its risks (related to the "uncertainty of the damage and the risk of *res judicata* against recovering later for damage as yet uncertain"), but did not address whether such litigation was permissible. *Id.* Thus, *Dickinson* permits plaintiffs to delay filing takings claims under certain circumstances, but does not provide specific guidance regarding cases in which plaintiffs choose not to delay in filing.

Defendant argues that the *Dickinson* stabilization doctrine does not apply to this case at all. Defendant distinguishes the present case, in which a latent but permanent physical occupation was discovered at a particular point in time, from cases involving known recurring invasions that at some uncertain point in time become permanent physical occupations.

Although plaintiff's claim does not fit precisely within the *Dickinson* stabilization doctrine because the accrual of plaintiff's filing in this court for statute of limitation's purposes is not really at issue, ⁵² it is well to remember that "the Fifth Amendment expresses a principle of fairness and not a technical rule of procedure enshrining old or new niceties regarding 'causes of action'--when they are born, whether they proliferate, and when they die." *Id.* at 748. Heeding this common sense of legal pragmatism, this court concludes that injustice would result if plaintiff were required either to file multiple takings claims to obtain just compensation—or risk having his claims become time-barred because the facts do not fit neatly within the limits to the stabilization doctrine. Therefore, in a case involving a taking by a continuing physical process, a claim is ripe for adjudication if the government has caused a substantial invasion of the plaintiff's property and the extent of the harm

⁵² See Boling v. United States, 220 F.3d 1365, 1370 (Fed Cir. 2000), where the Federal Circuit defined the stabilization doctrine in more precise terms: "stabilization occurs when it becomes clear that the gradual process set into motion by the government has effected a permanent taking, not when the process has ceased or when the entire extent of the damage is determined." *Id.* at 1370-71. Thus, "once it is clear that the process has resulted in a permanent taking and the extent of the damage is reasonably foreseeable, the claim accrues and the statute of limitations begins to run." *Id.* at 1371.

caused by that invasion is foreseeable. Under this rule, a plaintiff may seek just compensation for harm to private property that has not occurred, so long as that harm is shown to be reasonably foreseeable.

This conclusion is entirely consistent with general ripeness rules. "A claim is not ripe for adjudication if it rests upon contingent future events that may not occur as anticipated, or indeed may not occur at all." *Texas v. United States*, 523 U.S. 296, 300 (1998) (punctuation omitted). Also, ripeness requires courts "to evaluate both the fitness of the issues for judicial decision and the hardship to the parties of withholding consideration." *Id.* at 300-01. The requirement that a substantial invasion to property must have occurred ensures that the court will not carelessly wade into the uncertain waters of adjudicating "contingent future events." On the contrary, when a substantial invasion to property has occurred—and when the extent of the harm related to such invasion is reasonably foreseeable—takings issues readily susceptible to adjudication are presented. Moreover, under such circumstances, hardship would undoubtedly result if plaintiff were either required to file multiple takings claims or risk having claims become time-barred because the stabilization doctrine does not neatly apply.

Applying these ripeness standards and the pragmatic *Dickinson* doctrine to the summary judgment motion at bar, the court clearly must deny defendant's motion. First, plaintiff has presented evidence indicating that defendant has caused a substantial invasion to the ranch. The evidence before the court indicates that EDB contamination in the Old and New 4T Wells will persist for an indefinite period, at least several years. It is also undisputed that EDB-contaminated water is not only undrinkable, but also unsafe to use for other purposes. Thus, it is undisputed that the EDB contamination of the ranch ground water constitutes a substantial invasion.

Moreover, at the very least, there is a material question of fact for trial regarding whether the extent of the harm caused by this invasion is foreseeable. The parties dispute the extent to which the ranch is or will be contaminated by EDB. Arguing that EDB contamination of the ranch remains limited, defendant relies on the fact that the ranch continues to have clean water sufficient to maintain current operations. Moreover, defendant relies on the reports of its environmental consultant, which state: "Based on the water level and water quality data observed to date, the wells [Deverman Well No. 1 and the Wick Well] supplying the Nemo Guest Ranch appear to be upgradient and hydraulically isolated from the EDB impacted groundwater present further south." Related to this conclusion, defendant's consultant has posited that a fault running from East to West—roughly along the course of the road at the ranch's southern border—naturally shields the ranch from EDB contamination.

Of course, plaintiff contends that EDB will eventually contaminate all of the ranch's groundwater. Plaintiff argues that the contamination in the New 4T Well, which is located in the area allegedly protected from contamination by the inferred fault, undermines defendant's inferred-fault theory. The explanation Mr. Shleining offered in response to this contention only seems to indicate that the inferred-fault theory itself is founded on loose conjecture and should be understood accordingly.

Dr. Davis, one of plaintiff's experts, opined that the EDB plume "will continue to migrate onto" and "continue to move down-gradient or across the Nemo Guest Ranch property" from its source to the South. Moreover, Dr. Davis stated that there is a high probability that Deverman Well No. 1 and the Wick Well will become contaminated with both "biological agents from the creek and water under its influence" and "the EDB plume." Addressing the conclusions repeated several times in the Envirosearch reports, Dr. Davis specifically disagreed with the opinion that the ranch's groundwater is upgradient and hydraulically isolated from the EDB-contaminated waters to the South. Likewise, Dr. Davis stated: "I see no evidence of a barrier that would protect the ground under [the ranch]." Along the same lines, plaintiff's other expert witness, Dr. Webb, stated that she believes that EDB contamination of the ranch would grow worse, stating that "the EDB plume will continue to migrate onto the Nemo Guest Ranch property."

At a minimum, this evidence indicates that unresolved fact issues require the court to deny summary judgment on defendant's so-called ripeness argument. Beyond this, however, it is notable that defendant has failed to produce evidence specifically controverting plaintiff's evidence that all of the ranch's groundwater will eventually be contaminated. Defendant's evidence—a clean water supply in the present and consultant reports (which include the inferred-fault theory) assessing conditions long before this case was filed—have nothing to say about whether EDB will contaminate the remainder of the ranch's groundwater in the future. Defendant also could have obtained expert testimony regarding whether or not EDB contamination on the ranch is spreading. However, for whatever reason, defendant has not done so.

In summary, plaintiff's evidence regarding the spreading of EDB on the ranch may indicate that the easement will cover the entire extent of the ranch's underground water. Thus, at a minimum, the extent of the easement taken from plaintiff is a fact issue for trial.

2. Standing

In this section, the court considers whether defendant is entitled to summary judgment on its contentions that the claim plaintiff pursues accrued before he obtained his interest in the ranch (thus depriving him of standing). As an adjunct to this issue, the court also considers plaintiff's motion for partial summary judgment on its contention that its claim accrued in June 1999 when it first learned about the EDB contamination of the ranch. Finally, defendant argues that plaintiff's sale of the ranch to Mr. Wick in 2000 somehow undermines plaintiff's standing in this case.

Federal courts do not resolve abstract or hypothetical disputes. U.S. Const. art. III, § 2; see also Flast v. Cohen, 392 U.S. 83, 94 (1968) ("[T]he judicial power of the federal courts is constitutionally restricted to 'cases' and 'controversies.""). While the Court of Federal Claims is an Article I court, it applies Article III's case or controversy doctrine. See CW Government Travel, Inc. v. United States, 46 Fed. Cl. 554, 557-58 (2000) (listing several arguments why the Court of Federal Claims should be required to apply the case or controversy doctrine); see also Anderson v. United States, 344 F.3d 1343, 1349-50 n.1 (Fed. Cir. 2003) (acknowledging that the Court of Federal Claims applies the case or controversy doctrine).

Standing, an element of the case or controversy doctrine, is a party's right to seek redress for a legally protected right. *See Lujan*, 504 U.S. at 560-61. The standing principle is related to a fundamental takings rule: "[i]t is axiomatic that only persons with a valid property interest at the time of the taking are entitled to compensation." *Wyatt v. United States*, 271 F.3d 1090, 1096 (Fed. Cir. 2001); *see also United States v. Dow*, 357 U.S. 17, 20-21 (1958).

Defendant argues that plaintiff lacks standing because EDB was detected in the Old 4T Well before plaintiff purchased the ranch. *Id.* at 18-19. Defendant also claims that plaintiff lacks standing to pursue a claim for the taking of water rights associated with the ranch due to the sale of the ranch to Mr. Wick. D. Supp. Memo. of July 14, 2003 at 3-4.

In response to defendant's challenge to plaintiff's standing, plaintiff argues that the contamination of the Old 4T Well before his purchase of the ranch does not deprive him of standing, because no claim accrued for that contamination until he became aware of the contamination, which was after he purchased the ranch. Pl. Opp. Memo. of January 16, 2003 at 33-35, 37-38. More specifically, plaintiff argues that neither he nor Mr. Deverman (whose corporation owned the ranch when EDB was detected in the Old 4T Well) knew or had reason to know of any contamination on the ranch until June 1999, when EDB was detected in the New 4T Well. *Id.* Plaintiff also argues that his subsequent sale of the ranch does not deprive him of standing due to the property interest he retained under the contract for deed through which that sale was transacted. Pl. Supp. Memo. of June 26, 2003 at 1-3.

Furthermore, plaintiff argues that undisputed evidence establishes that his taking claim accrued in June 1999 when EDB was detected in the New 4T Well. Pl. Opp. Memo. of January 16, 2003 at 35, 37; Pl. Supp. Memo. of June 26, 2003 at 11; Pl. Supp. Memo. of November 4, 2004 at 5-6. This is the issue on which plaintiff claims that he is entitled to partial summary judgment. Pl. Cross-Motion of January 16, 2003.

First the court takes up defendant's argument that plaintiff lacks standing because the ranch was contaminated before plaintiff acquired an interest in it. The timing of claim accrual is significant here because "it is the person who owned the property at the time of the taking that is entitled to the recovery." *Palazzolo*, 533 U.S. at 639; *see also Wyatt*, 271 F.3d at 1096 (noting that plaintiff must have had a "valid property interest at the time of the taking" to obtain compensation for the taking of his property).

"[A] cause of action against the government has 'first accrued' only when all the events which fix the government's liability have occurred *and* the plaintiff was or should have been aware of their existence." *Hopland Band of Pomo Indians v. United States*, 855 F.2d 1573, 1577 (Fed. Cir. 1988). "Thus, the key date for accrual purposes is the date on which the plaintiff's land has been clearly and permanently taken." *Boling v. United States*, 220 F.3d 1365, 1370 (Fed Cir. 2000). If events fix the government's liability here, such events must be the permanent physical occupation of the ranch by EDB, the detection of the contamination, and any event that put plaintiff on notice of the contamination.

With these legal concepts in mind, it becomes clear that defendant's motion must be dismissed because the facts of this case are simply not consistent with the government's argument. Plaintiff has presented facts that overwhelmingly indicate that the taking claim did not accrue until after he owned the ranch, and defendant has failed to present evidence that contradicts or calls into question those facts.

While it is undisputed that certain amounts of EDB were detected in the Old 4T Well in March 1997,⁵³ well before October 1998 when plaintiff purchased the ranch, plaintiff stated that he did not learn personally about the EDB contamination of the Old 4T Well until June 1999, after he owned the ranch. There is no indication that defendant, Mr. Deverman, or anyone else informed plaintiff regarding the EDB contamination of the Old 4T Well before June 1999. There is also no evidence before the court indicating that plaintiff should have known about the EDB contamination of the Old 4T Well before June 1999. Mr. Deverman, who sold the ranch to plaintiff, stated that he did not know about the EDB contamination, himself. Mr. Deverman's son, who had attended town meetings sponsored by the Forest Service, told Mr. Deverman that the wells in use at that time (which did not include the Old 4T Well) had been tested and were not contaminated. Indeed, the only fact in the record that might have put Mr. Deverman on notice of the contamination prior to the sale was a letter that the Forest Service claims to have sent to all Nemo residents that disclosed the potential for contamination, but this letter was sent before any of Mr. Deverman's wells were tested for EDB and did not specifically address any particular property. See D. App. at Ex. 16. Accordingly, the government has not presented any facts that would indicate the taking claim accrued to Mr. Deverman instead of plaintiff.

Furthermore, the Envirosearch maps available when plaintiff purchased the ranch did not depict the Old 4T Well as contaminated. The fact that USFS had issued press releases, published legal notices in newspapers (that also published news stories), held public meetings, mailed letters, or distributed newsletters was not enough to put either Mr. Deverman or plaintiff on notice of the contamination of the Old 4T Well. The information in these sources was general or related to other property. Neither the general potential for contamination, nor the contamination of a neighbor's property would have entitled Mr. Deverman to pursue a viable takings claim. Therefore, information regarding such potential or neighboring contamination did not put Mr. Deverman or plaintiff on notice regarding the contamination of the Old 4T Well. In light of these facts, it is clear that defendant's argument that plaintiff lacked standing because the taking claim accrued before plaintiff owned the land is unsupported by the facts and must be dismissed.

On the other hand, these same facts tend to support the plaintiff's contention that his claim accrued in June 1999, when he first discovered EDB in the ranch groundwater. Plaintiff has filed a cross-motion for summary judgment on this limited issue, and treating that motion under the applicable standards of RCFC 56 it is clear to the court that the cross-motion should be granted.

To establish claim accrual, the following two conditions must be met: "all the events which fix the government's liability have occurred" and "the plaintiff was or should have been aware of

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⁵³ Because it is unknown, the court does not discuss the date that EDB first contaminated the ranch.

their existence." *Hopland*, 855 F.2d at 1577. To obtain summary judgment here, plaintiff must demonstrate that no genuine issue as to any material fact remains regarding claim accrual and that he is entitled to judgment as a matter of law. *See* RCFC 56(c). Of course, the accrual of a takings claim is not the same thing as takings liability. In showing that "all the events which fix the government's liability have occurred," plaintiff need not establish that he is entitled to summary judgment on the larger question of liability. *Hopland*, 855 F.2d at 1577.

The above facts demonstrate that neither plaintiff or Mr. Deverman were or should have been aware of the EDB contamination prior to the sale of the ranch to plaintiff. Plaintiff did not become aware of the contamination until June 1999. At that point, his takings claim accrued because the two conditions to claim accrual were satisfied. Once plaintiff had notice of the contamination, it was clear that a substantial invasion had occurred. Undisputed expert reports indicate that EDB contamination will persist on the ranch for an indefinite period, and that contamination renders the affected groundwater unusable and may eventually spread to the ranch's entire groundwater supply. In light of the foregoing discussion, the events that could fix the government's liability had occurred. This decision on claim accrual notwithstanding, plaintiff will of course have to prove the elements of a takings claim; this limited issue of claim accrual does not establish defendant's liability.

The second argument that defendant makes attacking plaintiff's standing implicates the sale of the ranch from plaintiff to Mr. Wick in 2000, after plaintiff had learned of the EDB contamination. The crux of defendant's argument is that this subsequent sale to Mr. Wick deprives plaintiff of standing to pursue his takings claim. This argument, however, is a red herring because it is inconsistent with takings jurisprudence that focuses on the claimant's property interest at the time the taking occurred, rather than on the time at which the claim itself is brought. Indeed, the important question is who holds the property interest at the time the claim accrues. *See Palazzolo*, 533 U.S. at 628 (contrasting an eminent domain case, in which "any award goes to the owner at the time of the taking, and . . . the right to compensation is not passed to a subsequent purchaser" with a regulatory taking, in which a claim "does not mature until ripeness requirements have been satisfied" and stating that regulatory takings claims could be transferred only if the claim had not yet ripened); *see also Dow*, 357 U.S. at 20-21 (noting that only the lawful owner of the property in question at the time of the taking is entitled to compensation). This issue, then, goes hand in hand with the preceding discussion of claim accrual, because the court determined that plaintiff's claim accrued in June 1999, which preceded the sale of the ranch to Mr. Wick.

Moreover, plaintiff's sale of the ranch does not disrupt his standing in this case, because of the type of transaction by which plaintiff and Mr. Wick executed the sale: a contract for deed. A contract for deed is a common mortgage substitute through which a seller finances the balance of the purchase price in a real estate transaction. Restatement (Third) of Property: Mortgages § 3.4, cmt. a (1997). Under South Dakota law, once parties execute a contract for deed, the seller "holds legal title in trust" for the buyer and is obligated to convey the deed upon final payment of the purchase price. *Lewis v. Moorhead*, 522 N.W.2d 1, 4 (S.D. 1994). The buyer "acquires equitable title and the right to use and possess the property." *Id*.

In addition to the standard contract-for-deed terms, the contract requires plaintiff to drill a new well on the ranch, guarantee that the new well remains free from contamination, and (in the case

that contamination "becomes a problem to the water system on the property") provide water for operation of the ranch. If contamination shuts down the ranch, the contract permits Mr. Wick to withhold payments and requires plaintiff to pay Wick interest on the amounts already paid.

As holder of legal title to the ranch, plaintiff maintains a significant property interest that permits him to pursue his takings claim, the sale to Mr. Wick notwithstanding. The fact that under the contract plaintiff bears much of the risk associated with the EDB contamination of the ranch—including the risk that Mr. Wick will rescind the contract—only lends support to this conclusion. The South Dakota statute regarding the necessary parties in eminent domain proceedings also leads the court to conclude that plaintiff maintains a sufficient property interest to pursue his takings claim. This statute requires that "all persons having interest in or liens upon the property effected by the proceeding" should be named as parties in eminent domain proceedings. S.D.C.L. § 43-26-7. Plaintiff's interest in the property following the sale to Mr. Wick is, at a minimum, a particularly powerful lien on the property.

State Highway Commission v. Miller, 155 N.W.2d 780 (S.D. 1968), considered whether a contract-for-deed purchaser possessed an interest sufficient to confer on him standing in an eminent domain case. See id. at 129. Thus, Miller did not directly address whether a contract-for-deed seller has standing in an eminent domain case. However, language in Miller indicates that both a seller and a purchaser under a contract for deed could have standing. The Miller court indicated that both seller and purchaser under a contract for deed maintain certain property rights. See id. at 127-28. Miller also noted that both the seller and purchaser under a contract for deed were made parties to ensure that the judgment binds both, "as in the case of mortgagor and morgagee." Id. at 783. This supports the conclusion that S.D.C.L. § 43-26-7, (requiring that "all persons having interest in or liens upon" the subject property are necessary parties in eminent domain proceedings) indicates that plaintiff has a sufficient present interest in the ranch to pursue his takings claim.

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Two South Dakota statutes specifically address contracts for deed and eminent domain. One prevents a purchaser from withholding payments or recovering from the seller payments already made if the subject property is destroyed or taken by eminent domain *after* either title or possession has transferred. *See* S.D.C.L. § 43-26-7. The other prohibits a seller from enforcing a contract for deed if the subject property is destroyed or taken by eminent domain *before* either title or possession has transferred. *See* S.D.C.L. § 43-26-6. The former protects the seller from harm that occurs after the transfer of title or possession, while the latter protects the purchaser from harm that occurs before the transfer of title or possession. Both statutes are apparently calculated to address disputes that arise from unexpected harm occurring soon before or after the transfer of title or possession. In this case, the EDB contamination of the ranch was well known to Mr. Wick, the contract-for-deed purchaser. Indeed, the contract in this case addressed the contamination of the subject property by:

(a) imposing additional obligations on the seller; and (b) providing the subject property to the purchaser at a discounted rate. Thus, it appears that §§ 43-26-6 and 7 do not apply here.

IV. CONCLUSION

For the reasons stated above, defendant's motion to dismiss, or in the alternative for summary judgment, is **DENIED**, and plaintiff's cross-motion for partial summary judgment on the limited issue of claim accrual is GRANTED.

IT IS SO ORDERED.

s/Lawrence J. Block Lawrence J. Block

Judge